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Clinical Medicine and Surgery

Medical Library

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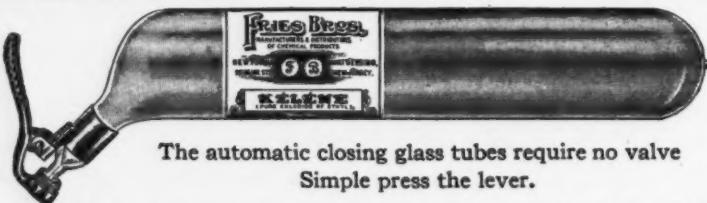
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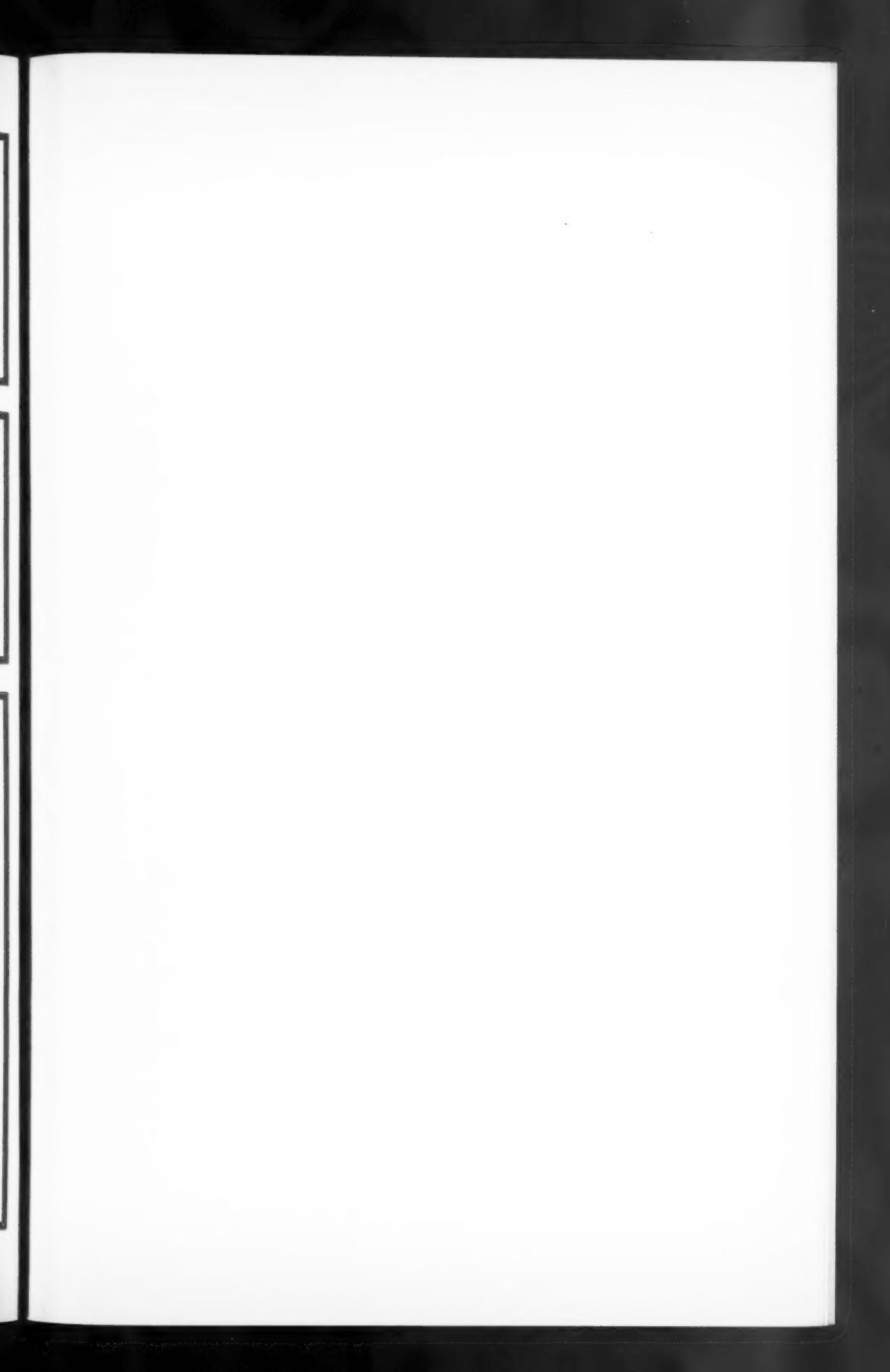


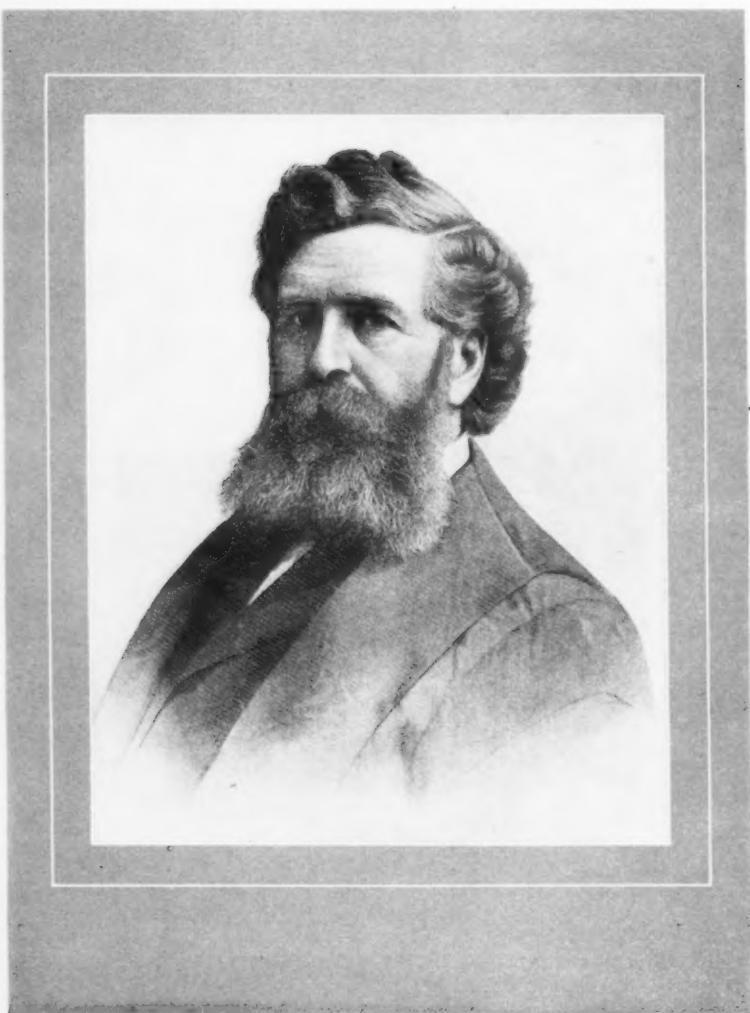
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CLINICAL MEDICINE AND SURGERY

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Dr. Truman W. Brophy

IN THESE days, when more and more thought is being given to the many reasons why a dentist should be a specialist in Medicine, the career of one of the most distinguished exponents of this idea holds a special interest.

A son, Truman William Brophy, was born to William and Amelia (Cleveland) Brophy, at Gooding's Grove, Will County, Illinois, on April 12, 1848.

After the boy had finished the public schools, he began his academic education at Elgin Academy, Elgin, Ill., which is now connected with Northwestern University.

In 1866 his family left the farm and moved to Chicago and the next year Truman entered the office of Dr. J. O. Farnsworth to study dentistry (as was the custom at that time), meanwhile carrying on his general studies at the Chicago Atheneum and Dyrenforth's College.

In 1870 he succeeded to the office of his preceptor, but, realizing the importance of his profession, as few then did, he decided, contrary to the advice of his friends and the general opinion of that period, to leave his active practice and obtain a college degree, in accordance with which plan he was graduated from the Pennsylvania College of Dental Surgery in 1872, with the degree of D.D.S.

Soon after his graduation he visited the surgical clinics in Washington, Baltimore, New York and Boston and became impressed with the thought that, in order to be a dentist of the best sort, a man needed medical instruction. Especially, after seeing a poor woman bring in a child with an exaggerated case of harelip and cleft palate, and hearing the surgeon say that the condition could not be remedied, he resolved that, one day, he would devise an operation which would make the lives of such sufferers tolerable. He did it!

Some years later he entered Rush Medical College, and emerged, in 1880, a full-fledged Doctor of Medicine.

Dr. Brophy's past training and college performance were such that, immediately after his graduation, he was elected to the faculty of his medical alma mater and taught oral surgery there for 26 years.

The next year (1881) he was one of the organizers of the Chicago College of Dental Surgery (now a department of Loyola University) and became its first president and dean of the faculty, retaining these positions until the end (except that, in 1920, he became dean emeritus).

From this time on, Dr. Brophy became one of the world's leaders in dental education and most distinguished exponents and

practitioners of oral surgery. He was called to all parts of the United States and to foreign countries to exercise his skill upon prominent persons.

His achievements were recognized by his receiving the degree of LL.D. from Lake Forest University (in 1894) and from Loyola University (1924), and that of Sc.D. from the University of Pennsylvania, in 1916. He was president, for the United States, of the Fourteenth International Medical Congress (in 1903) and was also president of the International Commission of Education. He was one of the founders of the International Dental Federation and of the American College of Surgeons, having been president of the former organization from 1914 to 1926, and the recipient of its Miller Memorial Prize, in 1924. France made him an Officer of Public Instruction, in 1913, and of the Legion of Honor, in 1924. During forty years or more he was prominent in the educational activities of both of his professions and was recognized as a leader until the day of his passing, February 4, 1928, in Los Angeles.

Besides contributing many articles to the current literature of dentistry and medicine, Brophy was the author of two recognized textbooks: "Oral Surgery" (1915) and "Cleft Lip and Palate" (1923).

Personally he was a handsome and impressive man, with a pleasing personality, a rich voice (which he used freely in public speaking) and a fund of humor. His hobby was the breeding of trotting horses and pure-bred dairy cattle.

Brophy will take his place in medical history as the illustrious protagonist of dentistry as a specialty in medicine, of which system he gave the world such a notable demonstration.

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Virtue can not live in solitude; neighbors are sure to grow up around it.

◆◆◆◆◆

I do the very best I know how; the very best I can; and I mean to keep doing so until the end. If the end brings me out all right, what is said about me won't amount to anything. If the end brings me out wrong, ten angels swearing I was right would make no difference.—Abraham Lincoln.

CHEMICAL EDUCATION

IT IS now rather generally recognized by thinking people that chemistry is a determining factor in our lives and that its position will become even more commanding with the passage of the years. The newness of this conception, however, probably explains why there has been, hitherto, no strong effort to coordinate the teaching of this extremely important subject.

Several years ago, with the assistance of the Chemical Foundation, the *Journal of Chemical Education* came into being and is making good progress. And now, for the first time in history, there is a chair of chemical education, at Johns Hopkins University, filled by Dr. Neil E. Gordon, the first professor of this subject.

The object of this department is to advance the knowledge of chemistry by correlating educational work in general science with the specialized branches—chemistry, physics, mathematics, etc.—and by developing teachers of chemistry, who will be expected to follow the lines of their greatest personal inclination and power.

Two lines of study will be pursued: Graduate work in the faculty of philosophy, covering four years and leading to the Ph.D. degree, open to sophomore, junior and senior students of colleges, who have shown special aptitude for such work; and a series of 22 summer courses in the School of Education, lasting six months. Of these latter, three will be offered this summer for the first time.

The idea is, ultimately, to have one carefully chosen and specially qualified student from every state. As an assurance that men of unusual promise shall not be barred by lack of funds, a four-year fellowship, carrying \$1,000 annually, will be offered in each state. Fourteen such fellowships have already been established, by individuals or by chemical, industrial or pharmaceutical companies, and the others will, no doubt, follow as the scheme develops.

Here will be presented much-needed instruction in the *science of presentation* and in the past history and future possibilities of chemical progress. Men will be trained to teach chemistry, in a sound and appealing manner, in our universities, colleges and large high schools.

Here studies will be made in relation to the problems of the part now being or to be played by chemistry in the prevention and cure of disease, and decisions will be arrived at as to which of these problems most urgently demand skilled and intelligent attention.

It would appear that, in lending their assistance to the establishment of this chair and to the development of its program, the Chemical Foundation and its president, Mr. Francis P. Garvan, have enabled the educational world to take a long step toward the urgently needed shortening of the gap which now exists between our wealth of scientific knowledge and the present inadequacy of its practical application in ameliorating the condition of the human race.

The responsibility of a university is confined to ensuring a certain development of mind and imagination in its graduates.—Sir Clifford Allbutt.

DENTISTRY AT THE CROSSROADS

EVER since dentistry emerged, years ago, from the class of the skilled trades and took its place as one of the recognized professions, it has been, imperceptibly perhaps, but none the less surely, approaching the crisis which now seems to be confronting it.

The mouth has been a part of the human body ever since there was such an organism, and physicians have partially recognized its importance in the general economy from the time when the first man of medicine realized that the appearance of the tongue might be a help in diagnosis. But, for some strange reason, dentists, until rather recently, have gone about their work as if the oral structures were a piece of more or less inanimate machinery, separate and dis-

tinct from the rest of a man's physical vehicle.

Researches carried out within the last decade or two have demonstrated that the mouth is of far greater importance than was imagined half a century ago. Dental foci of infection are now universally accepted as powerful factors in general illness, and we are beginning to recognize that impacted teeth and malocclusion may produce extremely important and far-reaching results. Moreover, the earliest symptoms of a number of serious diseases—pellagra, pernicious anemia, sprue and sometimes syphilis, among others—may present themselves in the mouth.

Since calcium metabolism has assumed such a definite place in our thought processes, we are beginning to study the shape, size, color and condition of the teeth, as being the most readily observable index of the osseous system in general.

The results of scientific study are the exclusive property of no man or group of men, but are available to anyone who has the patience and perseverance to consider and apply them. Medicine has no secrets which the dentist (or any other sincere and thoughtful man, for that matter) may not explore, if he will.

The dilemma facing dentistry seems to be this: Shall it remain a completely independent and autonomous profession, like optometry and chiropody, or even like law, engineering and theology, building, for itself, the foundation, which is now recognized as indispensable, directly from such basic sciences as anatomy, physiology, histology, bacteriology, etc.; or shall it become (as oral surgery) a recognized specialty in medicine, like otolaryngology, proctology or gynecology?

Perhaps the "autonomists"—who include a number of prominent dentists—had a good case, fifty years or more ago, but it is a bit difficult to see the soundness of their argument today. Do any of them really believe that Brophy would or could have gained the commanding position which he

held among them if he had not been a Doctor of Medicine, as well as a dentist?

The dentists are certainly practicing the healing art (both medicine and surgery) to a very important extent, most of them without the possession of a medical degree, and one wonders, sometimes, how they are able to follow such a course so easily and smoothly, while others, whom we characterize as "irregulars"—such as chiropractors and naturopaths—are having, in some quarters at least, such a rough time.

The condition of the teeth, gums and other oral structures is inseparably bound up with that of the body as a whole, and it is decidedly hard to believe that any man who has not a general medical education can be wholly competent to deal with diseased tissues in the mouth, while we realize that a non-medical oculist might readily do irreparable damage to his patients.

From the professional and pedagogic standpoints, as well as from considerations of public policy and the general good, the next logical step for dentistry would seem to be to make it a regular specialty in medicine. Not that sound and successful dentists now in practice should be required to stop their work and take a medical degree; but that all future dental students be required to take the medical course complete, followed by graduate study in oral hygiene, medicine and surgery, as well as the requisite training in dental restorations.

It would appear further, that it would be a graceful and diplomatic thing if the dentists would, themselves, urge this evolutionary change of policy; otherwise they may, ere long, find themselves in the embarrassing position of having it forced upon them.

If anyone has truly valid and reasonable arguments against the course here suggested, we shall be glad to give him a hearing.

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The optimist feels sure that we are now living in the best of all possible worlds; and the pessimist is afraid he is right.—Rabbi Louis Binstock.

IMAGINATION AND THE COMMON MALADIES

IT DOES us good, sometimes, to have someone peel us and hang our hide on the fence, as Chester J. Crowell did in the April (1929) Hearst's International-Cosmopolitan. And the beauty of it is, no physician to whom his remarks do not apply needs to take it to heart. He must have run into some dumb or lazy specimens of our profession (we all know there are such), for the conditions which he calls "tough luck diseases" are by no means being neglected, as he suggests.

Incidentally, one wonders why the clever writers who burst into the public prints rarely seem to have met any of the keen, capable, up-to-date physicians such as we encounter every day, but only the fossilized specimens who still believe that malaria is caused by bad air. Perhaps it is because praise or even defense of the medical profession would be unpopular, and the writer *must sell his stuff*.

He opens with a heart-rending picture of his lovely children, slowly perishing of inanition because of the terrible paroxysms of whooping cough, which went on, unameliorated, for months and months and for which their doctor would give them nothing but inane advice. He also rails at school authorities and boards of health for not instituting adequate quarantine measures in this disease. And he has a show of right on his side, on both counts, for he quotes from a recent article in the J.A.M.A., to the effect that whooping cough and its complications cause more deaths than does diphtheria, measles or scarlet fever; and that prompt isolation of the patient and exposed susceptible children is the only way to reduce morbidity and mortality. Truly, that doesn't look like great progress!

Our experience may be phenomenal, but we do not know a doctor who would refuse or neglect to do something for a patient with whooping cough, nor have we the slightest doubt that the medical men of our acquaintance would feel disgraced if such

a case dragged on for months, unrelieved. There are things to do, and we believe that most physicians, today, are familiar with the Bordet-Gengou vaccine, the x-ray and ultraviolet treatments and a number of useful drugs.

Among the "tough luck diseases," which, Mr. Crowell says, doctors consider too commonplace to bother with or even investigate, he classes ivy poisoning, migraine, neuritis and rheumatism. He must have been consorting with naprapaths and sanguinarians or he would surely have encountered one *real physician* who had heard of the researches that led to the development of a curative serum against ivy poisoning, of the careful and extensive studies which are being made of migraine, and of Small's discovery of *S. cardioarthritidis* and his preparation of a curative serum for acute rheumatic fever, as well as the development of amiodoxyl benzoate and other drugs for the helping of the severe and chronic cases. Friend Crowell apparently does not know that hundreds of thousands of dollars are now being spent in studying the "common cold."

Of course, after setting up a wooden Indian of professional ineptitude and apathy, made out of his own limited and, perhaps, biased personal experience, he proceeds, like all the other "popular" defamers of Medicine and its followers, to charge upon the bugaboo (*at three to five cents or more per word!*) with all the enthusiasm and good sense exhibited by Don Quixote in his famous combat with the windmill.

So much for that! If we tried to answer all the ignorant and joyous free-lance writers who are now having such a fine and profitable time romping all over the poor doctors, we should have no time left for more worth-while writing.

But out of all the fog of misinformation and lack of information, one real moral emerges: Many physicians do not use enough *constructive imagination* and *professional curiosity* in dealing with those among their patients who suffer from the

"common, ordinary diseases," which, as a rule, do not kill their victims directly and outright, but may murder their joy in life and cripple their efficiency.

No malady is insignificant, and the medical man who looks upon any disease in this light is failing to live up to the high traditions of his calling. We must deal with *every patient* in such a way that he will know that we are intelligent, sympathetic and capable; and we must let no opportunity pass to inform the public regarding the tremendous progress which is being made in the science and art of medicine.

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The people with imaginations are the ones who are making the world a safer, happier and more satisfactory place to live in.—Dr. Miles J. Breuer.
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INFECTION AND PERSONAL RESISTANCE

INFECTION is the *bête noir* of all surgeons but, no matter how meticulous they may be in their aseptic precautions, it continues to occur in a fairly regular percentage of all cases and there are wise and experienced men who declare that the source of these infections is generally, if not always, the hands of the surgeon.

But, while it would be a reprehensible action to diminish in any degree the sense of responsibility in the minds of all who take up the knife to incise the bodies of human beings, the facts that infections occur fairly regularly in the practice of the most punctilious surgeons, and that, under exactly similar technic, one patient will become infected and another will escape, strongly suggests that another factor is involved.

From the idea that patients were fleshy test-tubes, and that reactions from chemical and biologic processes would occur in them as they would in a flask or beaker in the laboratory, the pendulum of thought is swinging back to the conception that every patient is an individual and that the various reactions which make up the animal part of our existence take place in a

slightly different way in each man and woman. Personal resistance, then, must be reckoned with in considering every problem of infection.

In the *American Journal of Surgery*, for February, 1929, Dr. Joseph K. Swindt stresses the importance of strict attention to asepsis and the utmost gentleness in manipulation, as indispensable requisites to good surgery. In this we agree with him heartily; as well as with his dictum that physiologic rest is a necessary part of the treatment of wound infections.

Our disagreement begins when he intimates that, having put the infected part at rest, we must fold our hands and wait. There seems, at this time, to be ample reason to feel that we can do something more than this to help the sufferer.

The question as to whether antiseptic substances, introduced into the blood or tissues, exert a positive and specific bactericidal effect, is not yet fully settled: But that most, if not all, of the substances which have given favorable clinical effects, when used in this manner, cause a marked increase in the number and activity of the leukocytes is a fact which has been noted too often and by too many qualified observers to permit its being summarily dismissed.

Thousands of sufferers from infections have been helped in their fight with the invaders by the parenteral administration of salts and colloidal preparations of the heavy metals, such as mercury, bismuth, arsenic, manganese, etc., and by non-specific proteins like boiled milk (*Lactigen*), typhoid vaccine and peptone; and those who have studied the blood picture, along with the clinical signs, have regularly noted a stimulation of the phagocytes.

Every surgeon should be scrupulously clean and unfailingly gentle and should treat all infected wounds with the greatest respect, so far as manipulations are concerned; but, in the present state of our knowledge, we feel that, in the presence

of an infection, no surgeon should feel that he has done his whole duty until he has carefully studied the patient's individual resistance and used every available resource to conserve and reenforce it.

You cannot dissect Life nor make slides of it.—
S. P. Rees.

A DAY IN JUNE

A POET once inquired, rhetorically, "What is so rare as a day in June?" The literal-minded might retort that, since the sixth month has thirty days and the second but twenty-eight (except in a leap-year), a day in February is somewhat rarer. Thus does materiality clip the wings of Pegasus!

If, however, we understand with the poet that rareness means, not infrequency of occurrence, but beauty and desirability, then, surely June offers us the year's richest treasures, and we are, indeed, shortsighted and spiritually improvident if we fail to profit by Nature's largess.

June is like the maid of twenty. She has attained her delicious maturity—the coy and timid vacillation of spring has been overlived—but the solid and buxom robustness of midsummer is still in the future. Her eyes are warm and misty and her every touch is a caress.

He whose soul, as well as his mind, is absorbed in the prosecution of his mundane schemes will find no lure in the round arms of a blushing girl nor in the benison of a June morning. Such mummies should be interred in the catacombs of Egypt, where they belong. Burial in the living and fertile soil, from which spring roses and columbines, would be more than they deserve.

When duty calls, we must heed her summons; but who can blame the man who, on a morning of sun and fleecy clouds and scented breezes, bird songs and tender, whispering leaves, becomes somewhat hard of hearing and deserts his stern and useful taskmistress to wander for a day with that delightful and inspiring playmate, June.

LEADING ARTICLES

The Prevention of Pyorrhea

Collaboration Between Stomatologist and Physician

By ALFRED J. ASCIS, Sc.B., M.A., D.D.S., New York City

THE American Society of Stomatologists, which most strenuously advocates the cooperation and collaboration of dentist with physician for the benefit of the public at large, declares in one of its principles that the need of educating the public on matters of prevention and the preservation of oral health is most urgent. This principle reads as follows: "We further believe that the protection of health demands that the public be educated to appreciate the necessity for cooperation with stomatologists (dentists) and physicians (as very many diseases begin with infection in some part of the mouth), to prevent illness and to preserve health." It is from this point of view that I wish to discuss the prevention of pyorrhea: How the public can assist the profession by a proper appreciation of the need of cooperation between the patient and stomatologist-dentist, between the patient and physician, and between the patient, stomatologist and physician combined.

ORAL MEDICINE

While the world at large has lauded the accomplishments of American dentistry in the repair of damaged teeth and the replacement of lost teeth with bridges, comparatively little is known to the American public about how much more American dental doctors, or stomatologists, are benefiting the public by bringing *oral medicine* to a place of proper importance.

The philosophy behind the movement in the American dental profession, to place oral medicine on a higher plane than either *oral surgery* or *dental mechanics*, is the necessity for preventing oral disease and building up oral health, for the protection of national health. It is not sufficient that

a few individuals (or even a larger number of persons) are helped through proper treatment. The nation as a whole may be benefited little by it. Under present economic conditions, oral surgery or mechanical repair, aside from being merely palliative measures—patching up things—is too costly to be within reach of all.

There is an urgent need for establishing certain hygienic regulations on a broad foundation which will, not only prevent oral disease, but will maintain a healthy mouth. We have been accustomed to think of health in terms of disease and our health programs were based on principles of disease. What we need now is a positive health program—a regime of health maintenance in general, and oral health insurance in particular.

Oral medicine, on its curative side, deals with those diseases of the mouth which can be treated by measures other than surgery or mechanical repair, and concerns itself primarily with prevention. Among the diseases which have received the least attention on a national scale, as regards its prevention, is *pyorrhea*.

In spite of all the propaganda, by toothbrush and toothpaste manufacturers, and the splendid educational work done by the dental profession, the public has as yet not recognized pyorrhea to be a disease as serious as cancer, heart disease, tuberculosis, rheumatism, and other diseases. Ample evidence is available today to show that, not only is pyorrhea associated with these diseases, as cause or effect, but that it is equal, in its devastating effects on national health and wealth, to other chronic diseases. The danger of pyorrhea is that the damage done to health does not consist solely in the falling out of the teeth (this is

another consideration), but that the poisons which drain into the system cause a gradual undermining of health while the teeth are in the jaw-bone and while the disease process is in progress. This is a point which the public often overlooks, and probably accounts for the fact that it is often said, "Why treat pyorrhea? the teeth will fall out anyway." It is the disease process that is dangerous; the falling out of the teeth is a consequent and secondary danger.

PYORRHEA AND DENTAL CAVIES

Pyorrhea must be distinguished from tooth decay. Pyorrhea is a disease which attacks the jaw-bone, the root of the tooth and the gums: Tooth decay is a disease which occurs in the crown or the visible part of the tooth. Tooth decay is generally recognized by the attack of the disease on the outer covering of the crown, the enamel, and is generally arrested by filling the cavity.

The treatment of pyorrhea is not so simple a procedure, for the attack may take place through the outside, locally, in the mouth, due to gum infection and irritation, or through the system, for example, lack of proper nutrition of the bone, of the tooth or the gums. Tooth decay is effectively checked during childhood; pyorrhea is essentially a disease of adult life. A person may suffer from tooth decay and not be affected by pyorrhea, or may take diligent care of his teeth, and at the same time suffer from pyorrhea. The Indians suffer from pyorrhea because of the mushy foods they use, although their teeth are almost free from decay. The Indians polish their teeth with polishing sticks and not with bristle tooth brushes. A person may be affected both by tooth decay and pyorrhea.

Campaigns for the prevention of tooth decay among children should be encouraged, but its full value, for the nation as a whole, will be derived only when pyorrhea campaigns are followed up, to help also the rising generation of the adult population.

The real danger to oral health that the American people face is due to the ease with which sensational advertising, promising overnight pyorrhea cures, is accepted, because quackery is not so readily distinguished from science and, more especially, because the public takes little interest in dental matters. The scientific workers

in the dental profession of America are ready to offer advice, but the public must seek it, get it, and use it.

CAUSE AND SYMPTOMS

It is well to remember that, up to the present time, no specific cause—no one cause—for pyorrhea has been discovered. Pyorrhea is not a specific germ disease; it is not a typical deficiency disease, although much evidence indicates that dietary deficiency and bacteria play an important part in its causation. It is a chronic, not a contagious disease. There may be several causes, either due to general systemic unbalance or local disturbances in the mouth. It is usually recognized by the patient, in the advanced stages, when he observes the symptoms of gum bleeding, pain, loosening of teeth or gum recession. The question of a cure in this advanced stage is problematical and the favorable outcome and the value of treatment rests entirely with the stomatologist-dentist. In the earlier stages the disease process can be checked and arrested.

The presence of pus is not an indication that a typical case of pyorrhea is present. One may observe pus around the gum of a crowned tooth, and yet pyorrhea may not have affected that person. There may be no pus present and still the patient may have pyorrhea. Pyorrhea is a bone-resorbing disease process which breaks down the jaw-bone and loosens the tooth from its socket. Imagine the root of a tooth placed in a V-shaped socket and held firmly by a cushion of connecting fibers between the bone and the tooth. When the bone breaks down through the disease, the socket gets smaller, the V gets shorter, the connecting fibers are torn, the firmness of the tooth gradually disappears and the teeth finally fall out.

The x-ray picture is of great assistance in diagnosing pyorrhea. It shows how much of the bone has been destroyed, if any, by the disease, and is indispensable during the examination and treatment of pyorrhea. It also has a very significant preventive value. The family dental physician can more readily determine, by comparing x-ray pictures taken at given intervals, whether the condition of the patient's mouth has deviated or not from the health condition at the previous examination.

A lowered general resistance, a run down condition, systemic disease, especially diabetes, metal poisoning and malnutrition,

are added factors in the activating process of the disease, whatever the direct cause may be. Infection of the gums, whether due to the bristles of the tooth brush, to food collecting around crowned or bridged teeth, or to a unhygienic mouth, may all cause pyorrhea. Excess strain on the teeth or on a single tooth, by the improper meeting of teeth, may set up an inflammation in the tooth cushion and the result may be pyorrhea. Lack of nourishment or improper nourishment of the bone, the tooth or the gums and surrounding tissues is now being recognized as the most influential factor in causing the disease.

People very commonly confuse an unhygienic mouth with a pyorrheal condition of the mouth. Before pyorrhea can be determined, it is necessary to have the oral cavity in a healthy condition. A healthy mouth means the absence of disease in any of its forms. Focal infections, such as dead teeth, in which the nerve has been killed and the roots filled, infected tonsils, infected sinuses and other suspected foci, should be checked up by a consultation between dentist and physician. Examine the mouth with an x-ray, to see whether the roots are still buried in the jaw bones. They may be hiding there without your suspicion. Every person should be examined by his family doctor as to general health and by his family dental doctor, regularly, as to the hygiene of his mouth—to find out whether he has pyorrhea or not.

MISTAKEN IDEAS

It is high time that some sound logic be applied in dealing with pyorrhea. Common sense will show us that the "four out of five" who thought that they had pyorrhea, either still have pyorrhea or never had it, in spite of their use of the cure-alls and pyorrhea remedies, dentifrices and mouth-washes. The danger of these sensational advertisements lies in the disappointments which they bring to the people. The reaction to their failure results in a lack of confidence in science and in the profession, and not in quackery and misleading advertisements. One is not in doubt that we have to-day a growing army of the "fifth's" who, with perfect assurance that they are the lucky ones, may be in need of treatment.

Recently it was pointed out that a large percentage of cases diagnosed as pyorrhea are simply unclean mouths. It is obvious that, to deal with the problem

rationally, intelligently and effectively, prevention of the disease is, not merely a sentimental expediency, but a practical necessity. Check the disease in its early stages when some good may be the result. Of course, many cases of pyorrhea have been cured, even in the advanced stages, but the only method at our disposal to secure rational oral health, is periodic oral prophylaxis by the stomatologist and the patient. Whatever the cause of pyorrhea may be, daily prophylactic care of the mouth by the patient, regular physical examinations by the family doctor, and periodic oral prophylactic treatments by the family dental doctor, will be a most efficient means of maintaining the mouth in health.

PROPHYLAXIS

Dental prophylaxis, when it is generally associated with brushing the teeth, is responsible for the neglect of the health of the mouth. We must now start all over again and begin looking after a healthy mouth. We need *oral prophylaxis*, care of the gums, the jaw-bone and the tissues surrounding them. In many instances clean and white looking teeth, dead teeth, apparently innocent teeth, which help us while smiling, do a great deal of mischief; their beauty is only skin deep and their roots more deeply infected. This infection spreads to the system and to the bone. There is a vicious cycle caused by lowered resistance.

In our efforts to clean teeth, we have overlooked the importance of caring for the gums, which need nourishment and proper feeding. Our modern diet—our mushy, pappy food—does not provide sufficient exercise for the teeth, the gums and the bones. It has been shown that the use of the teeth makes them act like pumps on the cushions between the teeth and the bone. The blood is pumped repeatedly into this region; the circulation of the blood thus feeds, *revitalizes* these tissues. Lack of function is responsible for stagnation and when this devitalizing process takes place, the result is pyorrhea.

We must begin a process of revitalizing the gums and jaw-bones. Massage is a very good method of revitalizing the oral tissues, and one needs no expensive machines but can begin the work at once, using nature's machinery, the finger, or cotton rolls, sterile gauze wrapped around the finger, compressed cotton, rubber on brush handles, sponge brushes or anything

found helpful; but whatever one uses it should not be materials that will infect the gums.

With our newer knowledge of oral prophylaxis, the bristle tooth brush, which was thought for a time to be of value in tooth cleaning, has been found to be a danger to the gums. In the *Lancet*, a prominent dental doctor reported the results of his studies as to the cause of pyorrhea among the people in South Africa, Greenland and Iceland. In his opinion the toothbrush is the source of pyorrhea, in 90 percent of the cases. American and European authorities on this subject have, for a long time, called the attention of the professions to the danger of the toothbrush and the need for gum massage in oral prophylaxis. It is now time for the general public to avail itself of what dental science has to offer. Without the use of the bristle toothbrush, the number of cases of pyorrhea will be reduced to the small percentage that existed before the use of such a brush.

The toothbrush is especially dangerous in mouth infection associated with throat infections, including diphtheria, tonsillitis, scarlet fever, measles, etc. The bristle brush used just before the patient became ill must be destroyed. In trench mouth, the brush should be discarded at once. In cases of tender or bleeding gums the bristles of the brush may prick the gums and cause infection. All pyorrhea treatment aiming at disinfection is of little value when the brush is used.

It is to be regretted that the work that is being done by the American dental profession in this field of oral medicine or

preventive dentistry has, so far, been of little interest to the public press. Reports along similar lines by European doctors, are generally lauded as sensations by newspapers, although Americans have dealt with the subject long before.

The public is considerably confused about the cures of pyorrhea. Cures have been obtained in properly diagnosed pyorrhreal conditions; but because we do not know the specific cause there is no reason why patients should neglect their mouths after successful treatment.

The methods for the treatment of pyorrhea used today are medical and surgical. The use of ultraviolet rays has a great and promising future, though, as yet, little has been accomplished in this respect. The increased interest of the public in the control of this disease will stimulate the profession to further exploration. There is now no reason why patients should depend upon their own diagnoses.

In conclusion I wish to emphasize three general principles to be followed in the prevention of pyorrhea: (1) Watch the general health, for upon it depends oral health; (2) watch the oral health, for the prevention of pyorrhea depends upon it; and (3) oral health is a matter of one's own choosing. One may obtain it by carrying out a *routine of prophylaxis at home*. Massage the gums twice daily, and polish the teeth. Visit the family dental doctor periodically, in accordance with the oral condition. The object of professional care is observation and prophylactic treatment, when necessary. Observation is the more important preventive measure.

126 East 40th Street.



Work for the Work's Sake

It is most unfortunate that we are so strongly under the impression that to do a piece of work and not get the credit for it is little less than a calamity. This habit of making the work secondary and the recognition primary is unfair to the work. It encourages a peculiar kind of ambition which is neither lovely nor productive. By doing the thing for which you may get no credit you are building certain qualities which cannot be hidden.

Acme International Bul.

Some Factors in the Reduction of Mortality in Appendicitis

By JAMES W. DAVIS, M.D., F.A.C.S., Statesville, N. C.
Davis Hospital

IN THE Year Book of General Surgery for 1928, the statement is made that, during the past fifteen years, there has been an increase in the mortality from appendicitis.

Quain and Waldschmidt give the statistics in 1000 cases of appendicitis, grouped into three classes:

- 1.—Acute appendicitis.
- 2.—Acute appendicitis with abscess.
- 3.—Appendicitis with progressive peritonitis.

In the first group, 551 cases were operated upon, with two deaths—a mortality of 0.36 percent. In the second group of 289 cases, 262 patients were operated upon and seven died—a mortality of 2.42 percent. Of the third group there were 160 cases, two of which were not operated upon. Sixteen died as a result of appendicitis, a mortality of 10 percent. The average mortality in this group of 1000 cases was 2.5 percent.

Other hospitals have quoted even higher percentages. Some have estimated the average mortality throughout the United States as high as 10 percent.

The cause for this apparent increase in mortality from appendicitis may be due in part to the fact that more accurate diagnoses are made and more cases are recognized. It is possible, however, that there is an actual increase in mortality.

CAUSES OF HIGH DEATH RATE

This increase, in my opinion, is due to several factors. Since the influenza epidemic in 1918 and 1919 there has been, it seems to me, a greater number of cases of appendicitis which are due to a type of organism which tends to produce a progressive peritonitis. It is in this type of case that our highest mortality occurs.

Another cause is the indifference of patients to abdominal pains. They will often treat themselves without calling a doctor until after a perforation occurs. We often hear of a patient having taken small doses of purgatives before calling a doctor. This

is perhaps the greatest single factor in the increase of mortality from appendicitis. Patients also sometimes insist on deferring an operation and refuse to have anything done until they are suffering from an actual peritonitis, either from the extension of infection through the wall of the appendix or from a perforation.

The medical profession is certainly on the alert and it has been my observation that most doctors recognize appendicitis early and invariably advise the patient of the nature of the trouble and that an immediate operation is necessary. Where patients follow this advice the mortality is extremely low.

In our own personal experience we have been able to hold the mortality to a very low point. This has been due to several factors, the principal one of which is that the doctors in this section of North Carolina certainly make very early diagnoses and warn the patient in time. *No surgical procedure can take the place of an early diagnosis.*

Operation under local anesthesia is another great help. Where the appendix is removed under local anesthesia, there is less general disturbance and far less danger of postoperative complications. Even where perforation has already occurred, operation under local anesthesia is the safest procedure. Spinal anesthesia is advisable in certain cases.

DEXTROSE-SALINE INFUSION

In the postoperative treatment of appendicitis, particularly in the drainage cases, we have been giving glucose (dextrose) and isotonic saline solution, intravenously, and withholding fluids by mouth for the first twenty-four to forty-eight hours and in some cases as long as seventy-two hours. This has aided greatly in limiting the extension of peritonitis and preventing postoperative complications generally. This procedure alone has greatly reduced our mortality in appendicitis.

In any toxic or infectious condition the

body cells require increased quantities of fluids. Without plenty of water there is an accumulation of poisons in the body. Metabolism does not proceed as it should and there is a destructive action on the body cells, generally associated with the toxic action of various poisons in the system.

Dextrose and saline solution, when given freely, intravenously, enables the intestines to remain quiet. When fluids are given by mouth there are usually gastric disturbance, nausea, vomiting and tympanites and a greater tendency toward ileus. The spread of peritonitis goes along with increased peristalsis, later producing ileus and complete intestinal stasis.

When given intravenously, dextrose forms a readily available supply of energy. This is absolutely necessary to carry on the body functions. The toxins are diluted and rendered less harmful and are eliminated more readily, due to the increased amount of fluid that is given. Acidosis is prevented and the kidneys are protected from injury. The heart, which is under a great strain, is relieved of the destructive action of the toxins by the fluid and is nourished by the dextrose. The same may be said of the liver and nervous system and practically all parts of the body.

One of the great functions of the liver is its detoxicating action, and when this is impaired we have a serious condition. Dextrose and saline solution, given intravenously, aids materially in maintaining the liver function at the highest possible point of efficiency. The liver cells function actively and more normally. Degeneration of the cells of the body generally is prevented by the free administration of dextrose and saline.

When fluids are given by mouth, nausea and vomiting often ensue and aggravate an already serious condition. Fluids may be given freely by rectum. This, in some cases, is advisable but it causes the patient a great deal of distress and the absorption is certainly not so regular, satisfactory and sure as the administration of fluids given intravenously or subcutaneously.

We have given dextrose and saline solution, intravenously, to many hundreds of patients, and in no instance has there been any harmful reaction. All dextrose is obtained from one firm and is biologically tested. It is made up with every possible precaution. A five- or ten-percent solution

in isotonic saline may be given intravenously. In many cases we give as much as 1500 cc. twice daily, more or less, as the case may require. Where no fluid is given by mouth, patients complain a great deal of thirst, but the intravenous administration of sufficient fluid relieves this to a great extent.

The Alonzo Clark treatment for peritonitis is applicable to practically all cases. This method of treatment includes, in addition to the free administration of fluids, intravenously or subcutaneously, keeping the patient in the Fowler position and giving sufficient morphine, hypodermically, to keep him comfortable.

WHEN TO OPERATE

The time for operation, if perforation has occurred and peritonitis has set in, varies with the various types of cases. There is no fixed rule. Before the advent of local anesthesia it was usually customary to wait until the infection was localized and an abscess had formed and "walled off" before opening the abdomen and removing the appendix. In certain cases this treatment is advisable now. In some cases where an abscess has formed, merely opening and draining the abscess is all that can be done without endangering the patient's life. The appendix can be removed at a second operation at a later date.

In small children, where the omentum is not well developed, abscesses do not wall off so well, as a rule, and it is generally advisable to operate at once, except in extreme cases.

In handling cases of suppurative appendicitis with peritonitis, the best of surgical judgment must be used. A detailed discussion of the factors that enter into a decision as to the best time for operation does not come within the scope of this paper. I can say, however, that no phase of surgery presents more problems. Certainly nothing in surgery demands the exercise of greater surgical care, skill and judgment than the treatment of a patient with acute, suppurative appendicitis.

CONCLUSIONS

1.—The greatest single factor in the reduction of mortality in appendicitis is early diagnosis and early operation.

2.—Where perforation has occurred or peritonitis has supervened, whether the patient is operated upon at once or not, the

Alonzo Clark treatment for peritonitis is applicable in practically all cases.

3.—The free administration of fluids, especially glucose and saline solution intravenously, aids greatly in reducing the mortality in suppurative cases and in preventing complications in the simple cases.

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The Psychology of the Tuberculous Patient

(A Preliminary Report)

By E. P. BLEDSOE, M.D., North Chicago, Ill.

FOR many years men dealing with the care and treatment of tuberculous patients have recognized the existence of a large psychologic element in those suffering with the disease. For the most part this knowledge has been quite vague. Experience has taught them that the morale of tuberculous patients must be kept up, that they need help and encouragement in their difficulties and, no doubt, many of them have recognized the fact that the so-called "neurasthenic" symptoms so common among them are of purely psychologic origin.

So far as I have been able to find, little serious effort has been made (excepting the works of McCarthy and Munro), to throw any light on the basic psychologic mechanism of tuberculosis.

This paper is the result of many months of observation in a large hospital for the care and treatment of the tuberculous, which has convinced me that, underlying every case of tuberculosis, there is a definite, basic, psychologic mechanism, which cannot always be uncovered, it is true, but none the less is present and responsible, in many instances, for some of the puzzling symptoms belonging to these cases. This report is offered in hope of stimulating further investigation along this line.

Tuberculosis is a disease with two distinct factors; first, the organic or physical—the pathologic process in the lung—the

disease itself; second, the psychologic, almost a disease in itself and, in many instances, having little or no connection with the organic side, for it must be borne in mind that, from a psychologic standpoint, it matters not a whit whether the individual has tuberculosis or not. It is well known to those familiar with the tuberculous that, frequently, the individual with the greatest psychologic disturbance is the one with the least tuberculosis. Unfortunately, the interest of the average worker in tuberculosis is concentrated on the organic side of the disease. He is much more interested in rales than in complexes and is apt to lose sight of the importance of the psychologic side of his patient.

THE "FEAR" COMPLEX

The basis of most of the psychologic disturbances is what I have called, for want of a better term, the "Fear" Complex. The term "fear" is used in its broadest sense. Just as the term "libido" is used by the Freudian School to signify anything connected with the sex instinct, so the word "fear" covers all degrees of fear, apprehension, worry, etc., and can be traced back to, and based on, the fundamental primitive instinct of self preservation. Nor should this fear be confused with the fears or phobias of the compulsion neuroses—not a true fear, but a disguised expression of a repressed complex, often sexual in character. The fear com-

plex of the tuberculous individual is a true fear or anxiety, unconscious but none the less active—a fear of tuberculosis, of death, of disability or of the hospital, frequently not admitted by the patient but repressed by him into the unconscious, where it remains a continual source of conflict.

MECHANISM OF THE COMPLEX

Probably no disease is more widely known or more greatly feared than tuberculosis. Even its synonym, "The Great White Plague," carries with it an intimation of death and disaster. The well known phobia, or fear, of tuberculosis, observed so commonly among the non-tuberculous, is quite familiar and is not always a "conscious" fear. We might almost say that all adults have a fundamental fear of tuberculosis. Now this fear is not a pleasant or an agreeable sensation, and as a result, the fear is usually "repressed," forgotten, pushed out of the consciousness into the unconscious, there to lie dormant until recalled by some associative process. Thus it is that the repressed "fear complex," sometimes deep down in the unconscious, sometimes superficial and close to the surface, becomes a potent source of trouble, a veritable hidden mine of potential neurotic symptoms. This, very briefly, is the mechanism of the formation of the "fear complex." How and in what manner the fear complex affects the individual, is the question which naturally arises.

It is well known to those familiar with psychoanalytic work that it is the repressed complex which gives rise to the greatest psychologic disturbance. An idea or complex disagreeable to the consciousness or in conflict with another idea or group of ideas (complex) is "repressed" into the unconscious—an effort on the part of the individual to protect himself against a disagreeable mental situation. Unfortunately the repressed complex does not always "stay put" in the realm of the unconscious. It may be and is aroused by the simple process of association and may reappear in consciousness, not always in its original form, but frequently disguised so as not to be recognized by the consciousness (symbolism).

To the psychologist familiar with dream interpretation, the appearance in dreams, day-dreams, phantasies, etc., of "repressed" or buried complexes is not unusual, and a study of these phenomena frequently

affords valuable insight into the unconscious life of our patients. That a definite fear complex is present in the tuberculous is shown by its appearance in dreams and phantasies (day-dreams). It also makes its appearance in many other forms: somatic disturbances referable to the stomach, spine, etc., with no organic basis; certain anxiety states characterized by fear, anxiety, etc. (the so-called anxiety neurosis); and, less commonly, in a very interesting group of borderline mental states characterized by a paranoid compensatory mechanism. It is only by an insight into these psychologic factors that we may hope to understand some of the puzzling symptoms of the tuberculous patient. In other words, the psychologic symptoms of the tuberculous patient—many of his somatic complaints, his borderline mental states—are simply the appearance, in a disguised form, of an unconscious, "repressed" fear complex.

In support of this statement I wish to offer a few cases, observed during my work in a large hospital for the tuberculous, which will also serve to show that this report is based on clinical observation and not on pure theory.

CASE REPORTS

Case 1.—Mr. C.: This boy was brought to the hospital by his family physician, suffering from well advanced tuberculosis, involving at least three lobes. Mentally he was of a low-grade intellectual type, but not basically defective. On admission he insisted that he did not need treatment; that he did not have tuberculosis and did not wish to stay in the hospital. He appeared markedly depressed and anxious.

Shortly after admission to the receiving ward I happened to notice him standing in the corridor in a peculiar attitude, almost a somnambulistic state. I saw at once he was in a day-dream and coaxed him into my office, where, with difficulty, on account of his state of fear and terror, I succeeded in getting him to tell me what he saw in his phantasy. He stated that he saw himself dead and lying in his coffin prepared for burial. He knew that he had died with tuberculosis (this in spite of the fact that he contended steadily that he did not have tuberculosis and did not need treatment). Shortly afterward he eloped from the hospital. This illustrates the appearance of the fear complex in the day-dream.

Case 2.—The following dream was written down and given to me by a patient who was transferred to the hospital for treatment for tuberculosis, from an institution where she was undergoing treatment for a nervous condition.

This was a very interesting case of hysteria, which exhibited a definite dual personality. Much of the dream which deals with her nervous condition has been omitted, but it illustrates

nicely the appearance of the fear complex. Also note the symbolism in the figure, Death. This patient, who was quite intelligent and cooperative, states that she was absolutely unaware of any feeling of fear relative to her tuberculosis. It is also interesting to note that a careful examination showed no clinical evidence of tuberculosis.

May 19, 1922, early A.M., Friday: "I either represented my bigger self and mind or Mrs. S., my friend for many years, and on whom I depended for advice and happiness in her letters and good thoughts. I seemed to feel that this part of me was very big and strong and helpful and particularly powerful, but as I looked over at my real, conscious self I saw only a weak, frail and pale-faced girl, much like a child, with head bent low as though sad and lonely and alone. I thought as I looked at her, 'How little does she realize that she is dying with tuberculosis, and yet she is unconscious of it all, and I see no resistance. Her real self is gone and her fine qualities, to be able to fight against everything, seems gone from her.'

"Suddenly my attention became fixed on the open door, where stood a tall, angular figure arrayed in a black suit, such as the garments worn by Abe Lincoln or Robert E. Lee, in their portrait paintings—in the old-style, long, black coat and a high hat; and the face was long, so long! and the expression grim and stern and set. His name was Death. My bigger and subconscious self, or, as I thought, Mrs. S., faced him shocked. My subconscious self looked and decided it must find a way to protect this frail body, and then looked at Death, still standing still, never saying a word or moving a muscle; but I saw I must use my wits to outdo him. Then I woke up."

That the fear complex occurs unconsciously among those who are thrown in contact with tuberculosis, is illustrated by the following example:

One of the young ward doctors in the hospital, who had become interested in the subject through some of my lectures, came to me one day and said, "Doctor, I didn't realize that I had any fear of tuberculosis until last night, when I had a dream. I dreamed that I was having hemorrhage after hemorrhage." The mechanism in this case was very simple. A conflict arose between the fear of tuberculosis and his natural feeling that no doctor should fear disease. The latter being the stronger, the fear was repressed and made its reappearance in a dream.

The following cases illustrate the presence of the fear complex in certain so-called "anxiety states". It is also interesting to note that by far the largest percentage of cases examined by me showed this syndrome of fear, anxiety, or apprehension. These cases are verbatim copies, taken from neuro-psychiatric examinations made at the time and were not

made with the intention of throwing any special light on the psychology of the tuberculous.

FEAR IN ANXIETY STATES

Case 1.—The patient is quiet, cooperative, denies hallucinations or delusions, and there is no evidence that they exist. He is anxious, quite introspective and somewhat depressed emotionally. He complains of a vague fear, but is unable to state any reason for his anxiety. His general makeup is somewhat seclusive and he appears rather "shut-in".

Diagnosis: Psychoneurosis (anxiety state). A further analysis in this case showed that the vague fear complained of was due to a definite fear of death. This was a practically arrested case of tuberculosis and the patient was in excellent condition (with the exception of his nervous condition), and would soon be able to be discharged from the hospital.

Case 2.—Patient is depressed emotionally, anxious, and his general attitude is quite introspective. There appears to be a definite fear complex based on his condition—a fear of tuberculosis or of death, at the basis of his anxiety. During the interview he became quite tearful and it is apparent that this patient is rather overhospitalized.

Diagnosis: Psychoneurosis, (anxiety state). **Case 3.**—Patient is quiet, accessible, and cooperative. Emotionally he is somewhat depressed, becomes tearful at times and is quite anxious and introspective. While he denies any definite delusions or hallucinations, he has marked somatic ideas, relative to his cervical spine. The idea seems thoroughly fixed in his mind that he has some organic condition affecting his back and neck, and no amount of argument seems to have any effect upon him. A careful examination, x-rays, etc., fail to show any lesion in the region complained of. While there is no evidence of any active psychosis at this time, this is a borderline case which may possibly crystallize at some later date.

Diagnosis: Psychoneurosis (anxiety state). After several interviews, in which considerable resistance was encountered, this patient finally brought out the fact that he was afraid that he had tuberculosis of the spine. A definite fear complex was elicited, which is, no doubt, the basis of his nervous condition.

This case illustrates the fear complex as the factor in the production of somatic symptoms. This was an exceedingly difficult case which responded very slowly to treatment, due to the fact that this complex lay deep in the unconscious, and his somatic ideas had become thoroughly fixed. He has, however, improved greatly under treatment.

Case 4.—General attitude seems quite normal. He is quiet, cooperative, and denies any auditory or visual hallucinations. Emotionally he appears neither depressed nor elated. Intellectually he is considerably above the average, nor is there any evidence of deterioration, either intellectual or emotional.

There is a marked defect of judgment. He has a fixed delusion that he has discovered a cure for tuberculosis. He states that he has been working on this cure for two years, and that finally he is convinced that he has it per-

fected. This cure consists of an aqueous infusion of oak and pine roots, to which is added the germs of tuberculosis. These germs, he states, are obtained through a secret process known only to himself, and it is necessary that they be obtained between sunset and sunrise, as otherwise they will be killed by the light. This delusion is firmly fixed and he argues quite logically from a false premise and gives many reasons in support of his arguments.

He claims that he has cured himself of tuberculosis by the use of this medicine and that, eventually, he hopes to exploit his cure in a sanitarium which is being erected in his home town.

It is interesting to note that this man is a medical student and has some slight knowledge of bacteriology, in spite of which he holds firmly to his ideas relative to the remarkable cure which he has perfected.

This case illustrates a group of very interesting borderline types. The mechanism involved is a compensation for an underlying unconscious fear complex. In other words, the fear of death or tuberculosis (in this case, of tuberculosis) is compensated for by elaborating a rather paranoid group of ideas, in which he satisfies himself that he has cured himself of the dread disease by means of the remarkable remedy which he has perfected.

A striking thing about this case was the fixation of his false ideas; also the fact that careful examination showed no evidence of tuberculosis. In this case it was undoubtedly the fear of tuberculosis and not its actual presence which was responsible for his delusional ideas.

That this is not an isolated case is shown by the following: The similarity of the mechanism underlying both cases must be quite obvious.

Case 5.—Patient is quiet and cooperative. His stream of talk is active and he converses quite freely and with considerable circumspectness. Delusions and hallucinations are denied. However, he admits that he has perfected a cure for tuberculosis. This cure consists of a mixture of Scotch whiskey and linseed oil, with other ingredients which he refuses to disclose. The idea seems to be firmly fixed in his mind that this mixture will cure tuber-

culosis. He states that he cured himself with it and is anxious to try it on other patients in the hospital.

This boy ran away from home when he was fourteen years old and has been following the sea, off and on, ever since. He has worked at various jobs in various places, and at least, on one occasion, has come in contact with the law. He is quite loquacious and gives his life history freely and in detail. While there is no definite psychosis manifest at this time, he is undoubtedly of a constitutionally unstable makeup.

Diagnosis: Constitutional psychopathic inferiority (with paranoid personality).

The most striking difference between these two cases is the fact that the latter case has well advanced tuberculosis. However, the mechanism in both cases is similar, each representing a wish fulfillment as a compensation for an underlying unconscious fear complex.

The cases cited represent only a few, taken at random from my file. I might quote cases indefinitely, each showing some evidence of the presence of the fear complex, and each presenting some symptom, or group of symptoms, absolutely unrelated to the organic side of tuberculosis and, no doubt, quite puzzling to the ward surgeon.

While this report deals primarily with the "fear" complex and its relation to tuberculosis, it might be remarked that this phenomenon occurs frequently in connection with other chronic diseases. I have observed it particularly in heart cases, both organic and functional, and also in certain gastrointestinal conditions, following gastroenterostomies. The mechanism involved is practically the same as that described in this paper—an underlying unconscious fear, which makes its reappearance in the form of some somatic complaint.

This report is offered in the hope of stimulating further investigation on the psychologic side of tuberculosis and, possibly, of throwing some light on many puzzling conditions associated with the treatment of the tuberculous.

Inform the Tuberculous Patient

There is no greater mistake than to keep from the patient the knowledge that he has tuberculosis in its early stages, as it is only by having that knowledge that he can be expected to recover. We are criminal participants if we refuse to tell the patient exactly the nature of the trouble.—SIR WILLIAM OSLER.

The Philosophy of Office Furnishing

By MILES J. BREUER, M.D., Lincoln, Nebraska

WHEN medicine has become an exact science and it has become possible to cure every patient with the same certainty that we can repair a flat tire; when people have become merely pieces of physiologic apparatus, without ideas and without individual mental peculiarities; when folks have ceased to care about the appearance of surroundings and are satisfied to have schools in hovels and state capitols in barns; when the mental state has ceased to have any effect on physiologic processes; then the physician can disregard the way his office is furnished and can put all his efforts on the technical side of his work.

I have gone into doctors' offices, some in large cities and some in country towns, where the atmosphere seemed to constitute a distinct influence toward making people feel worse; where the doctor's efforts were spoiled before the patient ever saw the doctor himself.

A hundred years ago, the physician did most of his work at the homes of his patients and carried his equipment in one hand and a cane in the other. Today, in Europe, a very large proportion of medical work is done in hospitals. But the average American physician now does the major part of his work in his office. Even the surgeon meets and diagnoses most of his cases at the office. As a result of advances in transportation, people come to the doctor, often driving a hundred miles to do so, and scientific medical progress has been such that much equipment is needed to handle patients. A laboratory, x-ray machine, special diagnostic apparatus and physical therapy apparatus, cannot be carried from house to house.

People judge a physician's ability largely by external appearances. That may not seem fair; it may seem that his scientific and professional ability ought chiefly to count, and that people ought to use their reasoning powers, not their impulses and sensations, when selecting a physician. But the fact remains inexorably that people go where it is pleasant to go, and you and I do exactly the same. Even the intelligent person (and that is the kind you and I want for patients), who is able to reason it out, is apt to decide in favor of the skil-

fully furnished office. "Everything is dressed up nowadays," he will reason to himself. "If this doctor hasn't brains enough to understand that appearances are essential in modern society, there is danger that, having overlooked one essential thing, he may have neglected other essentials that I cannot detect so readily, because I do not understand scientific matters. But, I am afraid there may be defects in his technical ability." And he hesitates to come. Just as you and I would not deposit our money in a bank, the lobby of which was crudely furnished, no matter how strong a safe we knew it to be. Only the physician who is so situated that his patients will come to him, even if he makes it unpleasant for them, can afford to neglect the appearance of his office.

THERAPEUTIC VALUE OF APPEARANCES

And even then he will be neglecting part of a duty. A good-looking office is not merely bait to catch patients: Its appearance has actual therapeutic value. Furniture, carpets, draperies and a harmonious arrangement of all, in an artistic whole, have a clearly defined mental effect. Correct furnishings can soothe the nervous patient and inspire confidence in the worried one. Ten minutes' wait in the right kind of a waiting-room will put any patient in the proper mental state to receive the doctor's efforts in a cooperative instead of an antagonistic way.

By way of illustration I can remember having seen the motion-picture, "The Thief of Bagdad," twice. The first time was in a well-appointed Chicago theater; and the second in a bare, shabby shack in a small town. Although the film was exactly the same, there was all the difference in the world between the effect that the two viewings had upon me. I saw exactly the same film for twenty cents, the second time, that I had paid two dollars to see the first time; but the first was gratifying and satisfactory and the second a distinct disappointment.

Medical service is expensive today. People find it difficult to understand why they have to pay ten dollars or twenty-five dollars for an examination that their parents received for two dollars. Yet, in a

well furnished office, they will pay a good fee and do it uncomplainingly; whereas the same fee, equally honestly earned, will call forth objections and complaints if it has to be paid in a bare, crude, or ill-furnished place. These are the facts; the explanations must be left to the psychologist.

Finally, a factor that is not at all to be neglected is the increased confidence in himself that the physician derives from working in a properly furnished office. A doctor in ragged, shabby clothes, aside from the fact that he could not get a hearing in the first place, cannot conduct himself in such a way as to gain either the confidence of his patients or the proper results from his efforts. Success in medicine is largely a question of morale. Why can one captain lead an attack in the face of discouraging odds, when a hundred others could not? Sometimes the doctor carries on a harder fight than was ever seen on the battlefield, and he needs every possible external aid to his morale. During the last war it was considered justifiable to use all possible artificial aids to build up the country's morale. An appearance of success will bring success; and the psychology of it works on the doctor, quite as effectively as it does on the patient.

PRINCIPLES OF FURNITURE

There are definite principles that govern the psychologic effects of furnishings. You never find a bank decorated with fragile carvings and delicate bri-a-brac; there is always a subtle suggestion of safety in its massive appointments. People do not decorate bedrooms in red nor furnish dining-rooms in wicker-work. Color, size, shape, material, all contribute in determining the total effect on the mind.

First let us consider the waiting-room. It gives the first impression that the patient receives of the doctor. Each newcomer sits there and waits for some time with nothing for his mind to do except to wonder what the doctor is like and what he will do. He—and especially she—may be afraid or depressed or worried. Men are usually in a hurry and haven't much time to wait. Other patients are waiting their turn ahead; time drags.

The mind of the waiting patient is hypersensitive to every little suggestion. If you make him (or especially her) sit there and stare for twenty minutes at an oak-framed, sepia picture of a physician hold-

ing the pulse of a dying girl, or one of a hundred whiskered doctors in Eisendrath's clinic, peering eagerly at the lone victim on the amphitheatre table, he will eventually get so keyed up that jumping out of the ninth-story window will seem a welcome method of getting away from there. Pathology and the practice of medicine feel different to the patient than they do to the doctor.

A waiting-room ought to be so furnished that it will begin to exert a beneficial, though unrecognized, therapeutic effect on the patient as soon as he steps into it. The details of this furnishing will have to differ somewhat according to the class of people that come in as patients; but the first cardinal principle is that the furnishings ought to turn away the patient's attention from the fact that he is in a doctor's office. This is best accomplished by furnishing the reception-room after the fashion of a drawing-room or a living-room in a home. I know of one man on the west coast who has even put a radio into his reception-room. A soft carpet, chairs chosen with an eye to comfort and arranged in an informal manner, pictures on the walls with a keynote of bright color and light cheerfulness in subject, a floor lamp, a vase of flowers, a little bust or statuette, even a clock with a merrily wagging pendulum—all these have an effect on the patient, as definite and useful as that of a dose of any tonic invented.

Avoid furniture of the "office" type. The word "office," as applied to furniture, seems to mean bare, plain, severe, forbidding, disheartening. Choose things meant to go into good homes; and avoid cheap articles, whose cheapness is glaringly evident at the first glance and spoils the entire effect of the efforts in furnishing. Such are the most expensive in the long run.

IMPORTANCE OF COLOR

Color is the most important single consideration in this entire matter. If the question of color is successfully solved, many other errors will pass. In the first place, there ought to be considerable variety of bright color. A monotone is depressing; color attracts attention away from the patient's introspective processes and arouses definite emotions. Second, there ought to be a definite single underlying keynote of color, and all other colors must be either thoroughly in harmony with it,

or clearly complementary. And everything in the world depends on exactly what this color is.

Red is the worst choice. Red has always been the color of fire, emotion, unrest. There is a subtle suggestion of blood about it that must be kept away from a doctor's office; it will have its effect on the patient, even though he is unaware of it.

In most cases, green is the best choice.

Our emotional reactions to color are nothing more nor less than the adaptive heritage from past ages of human existence. Those creatures that have survived the evolutionary struggle of the past are the ones who have most readily adapted themselves to things as they exist in nature; and of these, man has survived the best. Green is the color of nature, and green is the color to which the human race has become accustomed—with which it feels at home. For a hundred thousand years or more, things have been green all around us at the time when there was warmth in the air, plenty to eat, and men were comfortable. Green signifies ease and plenty and safety, because for many millenia it has been directly associated with these things. Therefore, the effect aroused by a predominating note of green in a room is a comforting, soothing, reassuring one.

Pursuing the same line of reasoning, is it any wonder that white is uncomfortable and unpleasant? Without knowing exactly why, we are getting away from the white hospitals and white restaurants that the idea of asepsis originally engendered. For a hundred thousand years, the only pure white that man knew was snow; only yesterday have other white things come into his existence. White means cold, a scarcity of food and a disturbing urgency to exertion. It means danger and discomfort and death.

Brown, on the other hand, would be the next choice after green. We all recollect, as we think of it, that brown is a pleasant color. Why is a room furnished in the light golden-oak woodwork of the past generation distinctly irritating; whereas a dark-oak finish seems rich and pleasant and satisfactory? Because brown also has many pleasant associations in man's evolutionary history; and his anatomy and physiology have so developed that the retina and visual center are harmoniously adjusted to brown. Brown is the color of harvest, of plenty and rejoicing; the color

of autumn, when food supplies are heaped up and stored away; the color of most animal furs, of tree-trunks, of Mother Earth herself.

Brown is a good color for furnishing a room; but, for especially sensitive types of people, its effect contains the component of melancholy that is associated with the decadence of autumn, and it lacks the positive cheering effect that is so characteristic of green.

THE RECEPTION ROOM

I might do well by illustrating with a description of the way I have furnished my own reception-room. My plan may not be appropriate to all cases, for everyone has to consider the particular kind of people that come to his office, but the same principles are applicable to the working out of all problems. The people who come into my reception-room are about fifty percent country people, and fifty percent business men and families of a small city, who haven't lost touch with the country and get their golf and their fishing-trips out into the open.

The reception-room is furnished in such a way as to suggest outdoors. The carpet is dark green, with a long pile; the walls are lighter green and mottled irregularly, with the intention of vaguely suggesting masses of foliage and gleams of sunlight; the ceiling is bluish, but very light. There are three large, brightly colored paintings on the walls: one a typical Middle-West village, set in its vast, rolling sweep of prairie, with its red elevator, yellow railway station and white church, with golden-rod and sunflowers in the foreground; another is a scene from a local park with sweeps of elm trees and the white of a pavilion behind a row of poplars; the third is a tropical city with palms and white buildings. The furniture is wickerwork, for two reason: because it carries out the associations of outdoors that are so refreshing on the ninth floor of a downtown office building, and because it can be given color. I have made it green with touches of gold on the prominent parts — sunlight on foliage.

The chairs in a waiting-room ought not be set too close together. People do not like to sit too near to strangers in a doctor's office. In a street car or bus it may do; but here there is too much suggestion that the other fellow may be sick with

something contagious. Closely wedged rows of chairs entirely nullify the soothing effect of the arrangements thus far described. There may be a settee or davenport, both for the sake of its informal appearance, and for people who have come two or more together. There should not be a heap of tattered, dog-eared magazines on a table. Magazines ought to be kept in some sort of a case or holder that looks neat on the outside, even after magazines have become disordered from handling. And it is not fair to make the same set of magazines do duty year after year.

The business portion of the office, stenographer's desk, files, adding-machines, etc., is best placed in a little alcove just off the main waiting-room, so as not to intrude on the plan of arrangement. Where sufficient clerical help is available, it is best to have a separate business office. Otherwise, the business portion ought to be clearly segregated, and not mixed with the reception-room. It ought to look neat and efficient, but not obtrusive.

The carrying out of the details of furnishing must be done by someone who has either a natural knack for it, or the requisite training and experience. The average busy physician is the last person in the world who can successfully plan a waiting-room. Women usually have a better eye for these things than men, and the doctor's wife, once she comprehends the fundamental purpose and the underlying principles of the furnishing plan, ought to be able to handle it. However, the safest thing is to entrust the matter to some person specially trained for it. Department stores, furniture stores, decorative-art stores in the cities, all have employees well qualified in this work.

THE CONSULTING ROOM

The furnishing of the doctor's consulting office presents a problem just a little different. In the waiting-room it is, not what the doctor likes that counts, but the effect on the patient. The waiting-room is for the patients, not for the doctor. But the consulting office may express the doctor's personality. He may put in things that are congenial to his taste or match the color of his eyes; a trophy from his travels or his favorite color on the walls are not out of place. The doctor spends more time in this room than does anyone else, and it ought to be designed to please him

and to promote his efficiency. However, just as in the waiting-room, there are definite principles governing its furnishing. These are: the room must continue the correct psychologic effect that was begun in the waiting-room; and the psychologic effect on its constant occupant, the doctor, must be such as to promote efficiency and lessen fatigue.

For the first of these considerations, it is necessary that there be some clearly defined decorative scheme, just as in the waiting-room. Merely a bare room, with a desk and chairs, is at once depressing and discouraging. It makes the patient suspect, instinctively if not consciously, that the doctor's diagnostic and therapeutic efforts may be as devoid of plan and purpose as is his room. However, the scope for individual ideas is so wide that I shall not attempt any definite suggestions as I did in the case of the waiting-room. I shall mention only the things that ought to be avoided.

There ought not be the least suggestion of gruesomeness. Remember that anatomy and pathology are horrible to most laymen. Make the room a pleasant place in which to meet people, and omit the suggestion of disease and treatment: no bones, no instruments, no bottles of medicine. The pictures should be of good quality, pleasant and colored, and not medical in nature. Diplomas, for their best effect on patients, ought to be rolled up and put in the safe. Laymen are not interested in them, and several diplomas on a wall give it an inexpressibly dry and dreary appearance.

If space is at a premium, it is preferable to have the consulting room very small, with just room enough for a desk and some chairs, and to have the actual examining and dressing, etc., done in a separate room. The apprehensiveness due to the sight of an examining table or a glittering speculum will frighten many people so badly that it is impossible to get a proper history; they will refuse to tell essential points because they are afraid that something terrible will happen to them as a result. The consulting room must be designed with every effort to set the patient's mind at rest and get it away from the fear and apprehension of what is going to happen to him.

The room should be kept scrupulously neat and clean. Piles of old, ragged medical journals, books that have not been moved for years, a rusty stethoscope with

cracked and hardened rubber tubing, furniture that has not been renovated from the wear and tear of countless patients, a desk that looks like a municipal trash-dump; these things give a bad impression of the doctor himself, and interfere seriously with his efforts to help the patient. Keep things systematically; papers in files, books in a bookcase, instruments in a cabinet; and see that each object is in its place, not only to begin with, but *all the time*. Place the responsibility for the constant neat, cleaned-up appearance on the office attendants. No busy physician is able to look after the housekeeping of an office. That is what the girls are for.

In regard to the effect of the room on the doctor, color, noise, lighting and ventilation must be considered. A predominance of reds and yellows is irritating and fatiguing; greens and browns are restful. The general effect ought to be far more subdued than in the waiting-room; but small spots of bright color—little pictures, backs of books, flowers, draperies, etc., will form an agreeable contrast to the general scheme, and will rest the eyes and refresh the mind with an occasional glance.

The doctor's chair should be comfortable, and a good price paid for one is not a bad investment. Chairs must be arranged so that the doctor's back is to the light, while the patient faces it; and shades should be available to shut out the glare of direct sunlight. The consulting room should be so situated as to avoid as much street noise as possible. Unless ventilation is efficient, the doctor cannot do his best, cannot think clearly, and is in danger of making mistakes.

There will be other rooms in the office in which furnishings are more or less of a consideration: examining rooms, treatment rooms — any room that patients see. All these may be considered under one general idea. In all of these rooms, so far as possible, keep instruments, medicines, specimens, and all unpleasantly suggestive objects out of sight in drawers and cabinets. Get the patients mind off the fact that something is going to be done to him. The day is past for the members of the medical profession to advertise themselves by displaying the implements of their trade.

Exception may be made to this statement in the case of things of intrinsic interest or educative value to the laymen. Patients seem to be very much interested

in a metabolism apparatus or a polygraph, and will stop and look at it and ask questions about it. A chart on the wall of relative heights and weights, or of the sources of vitamins, will also hold their interest. However, all things that do not convey some sort of *agreeable* information ought to be kept out of sight in drawers or cabinets until actually needed.

BACK ROOMS

Finally, there should be no "back-room", full of trash and in ugly disorder, neglected with the idea that patients will never see it. Patients are bound to get a glimpse of it, and when they do it will utterly disgust them with the whole procedure. Every corner in the office must be so neat and orderly, so well kept, that the patient may wander anywhere without becoming ashamed of his doctor.

During trips to other cities for the purpose of attending conventions, I have visited hundreds of doctors' offices. My chief criticism against them is on the ground of dreariness. Trying to assume the attitude of the lay patient, I am unutterably depressed by their bare walls, dingy diplomas, neglected dust, bottles, and amorphous junk here and there in corners, and the utter lack of a little life, in the way of something interesting, familiar, or appealing to the lay mind. The explanation is that the doctor is too busy with serious things to have time for the frivolous details of office furnishing. That may be an explanation; but in view of the tremendous importance of the appearance of the office, from the standpoint of its effect on the patient, it certainly is not an excuse; no more of an excuse than if the doctor neglected his *materia medica*.

How different are my memories of those offices in which I found absolute cleanliness, neatness and rigid order; a little color in a curtain, a flower, a cheerful picture; something to brighten the corner where it was.

The way the office looks to a patient helps largely to decide whether he comes back again or not. It is much easier to go to a cheerful and attractive place, and people follow the path of least resistance. That is the general law of human conduct, and the doctor who takes advantage of it will come out ahead. The psychic effect of a correctly furnished office is to make the patient feel better, and he un-

consciously ascribes this effect to the doctor's medical skill. The patient will pay his bill much more readily and cheerfully in proper surroundings. Many people

who say that they "hate to go to a doctor" would not mind coming if it were made pleasant and attractive for them.

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Artificial Leukocytosis*

By NORMAN M. SMITH, M.D., Minneapolis, Minn.

LAST June my attention was called to the use of intramuscular injections of a 1:3,000 solution of hydrochloric acid in the treatment of various pathologic conditions, by Dr. Burr Ferguson, of Birmingham, Ala., and by the work of Dr. Granville Hanes, of St. Louis, who first used HC1 by local injection in pruritus ani, with marked success, in several hundred cases. Dr. Ferguson stated that he had successfully treated the same symptoms many times by injections of HC1 into the tissues of the abdominal wall. He contended, and I think rightly so, that the success attained by both methods was due entirely to the leukocytosis caused by the injection, and not to its local effect.

From my experience in some 750 injections of HC1 during the last seven months, I believe firmly that the increase in the number of white blood cells was the curative factor. Raising the leukocyte count is in strict conformity to natural processes, and body resistance depends on white blood cells, their number, vigor and activity. Nature uses these cells as a defense in all cases of trouble. I wish to impress upon you the importance of these two statements and quote the following extracts.

Metchnikoff, in 1907, published his book "Immunity in Infectious Diseases". He described dozens of brilliant experiments and concluded that phagocytes eat microbes. Invading microbes were seen to be digested within these cells, in the same fashion that a morsel of food is taken up by any other single celled animal. Metchnikoff concluded, early in his immunological studies, that the defensive mechanism of the body depends on this phagocytic digestion.

To quote Vaughan:—"Microbes are dissolved as fast as sugar or salt in water. One would die of an acute infectious disease were it not for the fact that a definite quantity of complement kills and digests microbes, just as a definite quantity of dynamite blows up a stump.

"But the quantity of complement available in any given body is limited. If it is sufficiently large, the killing of the foes and the disintegration of their bodies into harmless end-products will be rapid, so that the disease is mild and in its course short. If the quantity of complement is rather small, in relation to the number of microbes, and its availability to the ferments is slow, but yet sufficient at the end, the killing and disintegration of the microbes will be slower, the poisons exist longer and the course of the disease is severer and more protracted. If however, the quantity of complement, in relation to the number of existing microbes, is insufficient, the killing of all the microbes and the disposing of the poisons already developed become impossible and the patient is lost, in spite of a sufficiency of ferments, antibodies or anti-toxins he may have".

Alexis Carrel, in 1922, wrote an article from the laboratories of the Rockefeller Institute for Medical Research on "Growth-promotion Function of Leukocytes". He summarizes this article by stating:

"Two main facts were brought to light by these experiments: First, the presence of growth-activating substances in the leukocytes; second, the setting free of these substances in tissues and fluids where leukocytes accumulate. Cells could not live in the absence of leukocytes, which supply them with substances required for their activity. The presence of such substances in the leukocytes was shown by our experiments, and the growth-activating power acquired by inflamed connective tissue demonstrated that the leukocyte could actually bring these substances to the fixed cells.

"Growth-promoting substances are stored in leukocytes, glands and muscle tissue. The existence of mechanisms causing leukocytes to invade tissue in need of repair is certain. The initiation of healing seems to depend on the coming of leukocytes to the wounded tissue. These leukocytes have the important function of promoting cell multiplication in the parts of the organisms where they accumulate, under certain conditions."

Metchnikoff has proven that immunity or a state of health is dependent on the fact that phagocytes eat microbes, and that the defensive mechanisms of the body depend on this digestion. Vaughan claims that leukocytes manufacture a certain amount of complement to kill and digest

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microbes, the amount and availability of complement depending on the number, vigor and activity of the white blood cells. Carrel states that leukocytes have growth-activating substances which they are able to set free where such substances are required. His final conclusion is: "The existence of mechanisms causing leukocytes to invade tissues in need of repair is certain." Ferguson has proven, by hundreds of experiments, that intramuscular injections of 1:300 hydrochloric acid are always followed by leukocytosis, particularly of the polymorphonuclear variety.

Considering the work of Metchnikoff, Vaughan, Carrel and Ferguson, it must necessarily follow that increasing the number of white blood cells by 20, 40, 60 or 100 percent increases the body protection and resistance in the same proportion and equally advances the patient's chance to recover. It is on the basis of these conclusions that I wish to report the following cases whose improvement, I believe, resulted directly from intramuscular injections of HC1.

Case 1.—Mr. C. J. L.; age 54; R. R. Brakeman.

This man had chronic bronchitis, of two years' standing. His cough was severe, dry and paroxysmal. He had little or no fever, moderate pain, but marked dyspnea. The shortness of breath was worse after exertion and particularly marked while climbing up the ladder on freight cars. Frequently he was obliged to rest half way up.

Physical signs were typical. Moist rales were abundant, mostly at the base; dry rales were present but not so much in evidence; sputum analysis showed a large amount of thick, viscid mucus, few pus cells and a very few pneumococci; no tubercle bacilli found. This patient also had infected teeth, all of which were extracted. There was no adverse personal or family history.

He was given HC1 injections every five days. The leukocyte count, which was 10,500 at the first examination, increased after each injection, 11, 32, 33, 40, 48 and 75 percent, respectively. After thirty days' treatment there were no objective symptoms except an occasional cough. The patient felt perfectly well and was able to do his eight hours of switching without unusual fatigue.

Case 2.—Mrs. A. W.; age 49 years; x-ray diagnosis, bronchiectasis.

This patient complained of chronic cough, which she had had for many years. Her cough was violent, with copious expectoration of offensive sputum of a grayish-brown color. Sometimes she sat up in bed all night coughing. Every night she had at least a four-hour paroxysm of violent coughing. She also suffered from dyspnea, pain, general soreness, exhaustion and loss of weight.

She was given two injections per week of

HC1, 1:3000, and had very satisfactory reactions. Her percentage of increase in the white blood cells varied from 15 to 154 after each treatment.

This patient improved from almost the first injection. Now, after eight weeks, she sleeps soundly all night, has no dyspnea, soreness, pain or exhaustion, and has gained in weight and strength.

The next two cases are of pulmonary tuberculosis and I report them with great hesitancy, only because of the fact that they are markedly improved and may help to prove that body resistance or a state of health depends on the number, vigor and activity of the leukocytes. It must be distinctly understood, however, that I am not advocating the use of HC1 as a cure of pulmonary tuberculosis.

One of these cases, a boy of sixteen years, had typical clinical pulmonary tuberculosis. I will give you the leukocyte and polymorphonuclear counts during one month of treatment.

Day of Month.....	4	6	9	12	16	19
W.B.C. before injection.....	7200	7400	13300	10400	9900	9200
P.M.N.	85	79	83	80	80	74
W.B.C. after injection.....	10700	11200	17200	14200	10600	11900

Applying the Gibson chart or index to the total leukocyte and polymorphonuclear counts, it will be seen that the resistance is gradually increasing, as shown by the leukocytosis, while the infection is gradually decreasing, as shown by the lessened percentage of polymorphonuclear cells. The resistance line of Gibson, at first markedly ascending, is approaching the level or is descending.

The second case is in a man of 42 years, with an x-ray diagnosis of "Minimal pulmonary tuberculosis, probably quiescent."

During a month of treatment he had a percentage increase of 32, 36, 42, 50, 90 and 105 after each injection, given at intervals of five days. The resistance line of Gibson applied to this case is slightly ascending at first, but as time goes on the line approaches the level or is descending.

This case has continued to improve and at the present time, after four months' treatment, the patient weighs more than he has for ten years, is working eight hours daily and has no objective symptoms.

Case No. 5.—A case of Addison's disease in a man of 33 years, with a negative personal and family history, except that the patient's father died of Addison's disease.

This man had quite typical symptoms: Light-yellow pigmentation of the skin over the entire body; irritability of the stomach; anorexia;

nausea; abdominal pain; diarrhea; general languor; increasing debility; muscular prostration; vertigo; headache; and anemia.

Wassermann test, negative; stools, negative; blood chemistry, negative, except for high urea nitrogen; urine negative, except a large trace of indican; and x-ray of the abdomen, negative.

The hemoglobin was 82 percent; leukocytes, 15,600; red cells, 4,452,000; blood pressure, 100 systolic, 54 diastolic.

This patient was under treatment for six months and had regular injections of HC1 every five days. His improvement was slow and discouraging at first, but gradually he increased in weight, his strength returned, his appetite improved, stomach symptoms disappeared, he had no vertigo, headache or diarrhea. His muscles became hard and firm instead of soft and flabby, his skin became clear and the pigmentation was not visible. I doubt if a diagnosis of Addison's disease could now be made, but what the

future holds for this man is a problem difficult to answer. Certainly this now vigorous, hard-working man compares favorably with the sickly, discouraged, half-helpless creature of six months ago.

A number of other conditions have been successfully treated with HC1; viz. acute otitis media, lung abscess, infarct of retina, impetigo circinata and erythema nodosum.

I believe remarkable results can be obtained with the artificial leukocytosis by injections of HC1, but it must be used with caution; it is not a cure-all; it does not remove the cause; it is not always indicated; and other rational treatment must not be neglected.

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Pyelitis in Infancy

By L. J. HALPERN, M.D., Chicago

THE frequency of pyelitis, especially in infants, and the ease with which it is commonly overlooked increase the importance of this disease, not alone from the standpoint of the pediatrician, but also as regards the general practitioner, who is usually first to see the great majority of these cases.

In terms of pathology, we are accustomed to look upon pyelitis as an inflammation of the calyx and the pelvis of the kidney. Further knowledge on this subject is possible only in proportion as the amount of postmortem material, from cases controlled during life by ureteral catheterizations and bacteriologic studies, increases. Nor have the modes of infection in pyelitis been definitely settled. At present we theorize on an ascending, a hematogenous and a transparietal mode of infection. The bacteria involved in this disease are most often of the colon bacillus group. When the pyelitis is secondary to an infectious process elsewhere in the body, we may find staphylococci, streptococci, typhoid bacilli or other pyogenic organisms predominating.

We are accustomed to recognize two forms of pyelitis; the primary and the secondary. We think in terms of a primary pyelitis when it occurs in an infant in whom no other associated or immediately preceding infection is present; and of a secondary pyelitis when it occurs during

the course of an infection elsewhere in the body, such as naso-pharyngitis, upper respiratory tract disease, influenza, pneumonia and gastroenteritis.

SYMPTOMS

The symptoms and signs of pyelitis in infancy are, indeed, varied. Tenderness over one or both kidneys and a complaint of burning or pain on urination, that would suggest genito-urinary disease, are not to be expected. We are fortunate to elicit these in children, in whom the picture more often approaches that seen in adults; but in infants we are usually forced to suspect and then finally arrive at a diagnosis of pyelitis by means of other definite findings.

In the primary form, the outstanding features of this disease, in infants, are restlessness, fretfulness, an unexplainable fever, which may typically fluctuate but more often runs a non-typical, varying course, lack of appetite and sometimes vomiting, an anemic appearance and occasionally pain associated with the act of urination, as evidenced by crying. The blood reveals a leukocytosis. If, then, in such a case, one remembers to examine a fresh specimen of the infant's urine, the essential findings consistent with a diagnosis of pyelitis will consist of a moderate or greatly increased number of pus cells, often clumped; albumin in small amount or ab-

sent; usually an acid reaction to litmus paper; an occasional red blood cell (though this latter is not an essential finding); and numerous bacteria.

The secondary form of pyelitis manifests an even more varied picture. A diagnosis of an acute infection, like naso-pharyngitis, upper respiratory tract infection or gastro-enteritis, having been correctly made, the infant is put on therapy to meet the situation. But, instead of improving, the illness continues. The temperature may reveal wider fluctuations. A subsequent examination of the infant fails to reveal any obvious additional findings or cause for the continuance of the illness. Perhaps another white blood count reveals a climbing leukocytosis. In such a case the examination of a fresh specimen of the infant's urine is absolutely indicated. The fact that the urine was entirely negative when examined at the onset of the original illness does not preclude the possibility of the onset of pyelitis at this stage of the illness. This is most often the time when it does ensue. The urinary findings will, of course, simulate the description given for primary pyelitis, excepting, possibly the bacteriologic picture.

The duration of pyelitis varies. It usually lasts from ten days to two weeks, though in some cases it may continue much longer. The secondary form naturally tends to clear up when the original infection, during the course of which the pyelitis occurred, has cleared up. It should be considered cured only after at least three successive daily urine specimens have revealed entirely negative findings. Recrudescences and recurrences are somewhat common, so that an infant who has had pyelitis once must be observed as a potential possibility for pyelitis in the future.

Death from simple pyelitis is rather uncommon. When it does occur it is most often due to secondary abscesses in the kidneys, high-grade intoxication, especially in malnourished infants, pneumonia, a suppurative complicating condition elsewhere in the body or those severe cases complicated by jaundice¹.

DIAGNOSIS

The diagnosis of pyelitis in infants is dependent on familiarity with the clinical picture to be expected and on the fact that one must remember to consider the possibility of its occurrence. We usually look for the symptoms just described, plus the

typical urinary findings, to establish such a diagnosis. Moreover, it is of utmost importance to remember that one negative urine examination does not exclude the possibility of an existent pyelitis. Several daily urine specimens should be carefully examined before we may reasonably discard the likelihood of that disease. I have seen both infants and children, in whom pyelitis was strongly suspected, present negative urinary findings for several days, when suddenly a subsequent specimen of urine revealed a shower of pus, often coincident with a temporary decline in fever.

Just as one or two negative urine specimens do not definitely rule out pyelitis, so, too, a few pus cells in the urine do not warrant or confirm such a diagnosis. One must never forget that, in female infants, vaginitis, no matter how mild clinically, may account for a moderate number of pus cells in the urine. It is in such a case that a catheterized specimen of urine is imperative in order to exclude errors in diagnosis.

In those cases with a protracted course, in spite of the usual therapeutic measures, and in those in whom it is desirable to further localize the exact site of the pathologic changes, a complete urologic examination, comparable to that done in adults, is indicated^{2, 3}. With the present improvement of urologic instruments and technic for infants, one need no longer forego the benefits possible by these means, when considered from a standpoint of therapy, as well as diagnosis.

TREATMENT

The treatment of pyelitis in infants depends somewhat on whether it is primary or secondary. In the latter case, the usual alkalinization and pushing of fluids, as carried out for the original infection, usually suffices. However, should the pyelitis persist, then treatment, as outlined for the primary form, is adopted. When pyelitis is secondary to a stone in some part of the urinary tract, the removal of that foreign body is usually necessary. When it is secondary to gastroenteritis, the treatment should be directed to that condition and a change of diet, with sometimes buttermilk as the basis, may be tried, with the idea of changing the bacterial flora of the gastrointestinal tract and thereby favorably influencing the course of the pyelitis. When, as happens in an occasional case, the disease is of a tuberculous character,

the treatment consists of the usual general measures employed to combat that disease, plus local treatment, as outlined by a competent urologist.

The treatment of primary pyelitis depends on the degree of toxemia present and on the reaction of the urine. Fluids are pushed to the maximum, mostly in the form of water. In order to accomplish this it is usually best to order a definite amount, say 1 to 3 ounces, every two or three hours, or oftener. In those infants who refuse to take their fluids, and particularly in the very toxic or septic cases, it may be necessary to resort to the introduction of isotonic saline solution or properly prepared 5- to 10-percent dextrose solution, subcutaneously, intramuscularly or intraperitoneally.

The reaction of the urine dictates the type of medication to be prescribed. If, as in most cases, it is acid, an attempt is made to make it alkaline and unfavorable to the bacilli of the colon group, by giving alkalis by mouth. For this purpose sodium bicarbonate is probably as efficacious as the other alkalis and should be given in doses of from 25 to 50 grains (1.6 to 3.2 Gm.), four times a day, until the urine reacts alkaline. If, on the other hand, the urine was alkaline when first examined or the alkaline treatment appeared ineffectual in the case with an acid urine, then urotropin (methenamin), given in doses from 1 to 5 grains, (0.065 to 0.325 Gm.), four times a day, should be tried. It is, of course, essential to give, along with the urotropin, in the case of an alkaline urine, an acid salt like acid sodium phosphate, so that the urotropin is enabled to generate formaldehyde, to which we ascribe its beneficial action. Moreover, it is absolutely essential that the urine in

such a case be examined at least once daily, to ascertain the presence of red blood cells, which would call for the immediate cessation of the use of this drug.

Changing the reaction of the urine from acid to alkaline, and then back again, have been the mainstay in the treatment of pyelitis. Salol has been given internally, with a varied degree of success. Caprokol has been introduced into the armamentarium of therapeutic agencies in the treatment of pyelitis. It is acid in reaction and it is claimed that the best results can be expected from its use when the intake of fluids is limited. Pituitrin has also been suggested.

In spite of what has just been said, one finds a certain number of infants who do not respond to the treatment outlined above. It is in those types of cases that an autogenous vaccine, made from the organism recovered by culture from the infant's urine, may be tried. The vaccine procurable on the market for this purpose is probably less dependable to produce satisfactory results. In obstinate and serious cases, local treatment to the bladder, ureters and pelvis of both kidneys, by experienced hands, may be necessary.

The intramuscular injection of whole blood, to counteract the severe anemia frequently encountered in these cases, as well as to fortify the patient's resistance during the course of a severe case, is recommended.

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6355 Broadway.

What's Next?

Not in the reviewing of your accomplishments, even of an unusual kind;
Not in pondering over your past work, although exceptionally well done;
Not in contemplating your victories, that even reflect brilliant achievements; only in forever facing the Future's question, "What's Next?" lies your further value and service to mankind.

Giving your thoughts over exclusively to recapitulating past deeds, breeds inactivity; and inactivity is not LIFE—It is DEATH.

—JAS A. WORSHAM

The General Management of Otitis Media

By M. R. DINKELSPIEL, M.D., Wilkes-Barre, Pa.

WHILE the general practitioner is often first consulted about an otorrhea, the majority of cases ultimately come under the care of the specialist. Even with intensive postgraduate training, every out-patient department has its quota of cases of chronic suppurative otitis media of long duration.

Every symptom referable to the ear requires an otoscopic examination through a clean canal, after removing, with a syringe and warm water, all pus, debris, wax, etc. Each case of chronic suppurative otitis media is a case by itself, based upon the pathologic changes and the clinical symptoms.

CLASSIFICATION

The cases may be divided into two classes: Those limited to the middle ear, and those with bone involvement. While the mastoid cells are always more or less affected, bone involvement should not be considered unless it is demonstrable by further examination. The discharge may be of a thin, mucoid character, with no odor, or it may be thick and with an odor discernible at some distance from the patient, depending upon granulation tissue, polypi, or caries of the ossicles.

The general classification of otitis media has hitherto been more or less obscure, the best one, I believe, being that of Harold I. Lillie¹, as follows:

(1) Hypertrophy of the lining membrane of the antrum and mastoid cells, and complete obliteration of these cells, (the granulating tissue which fills them may persist or ossify); (2) granular osteitis and carious softening of the walls of the mastoid antrum, which may become abnormally widened, giving the appearance of a cavity similar to that following a radical mastoid operation; (3) circumscribed or diffuse caries and necrosis, with or without sequestration; (4) formation of a cholesteatoma, resulting in destruction of bone from pressure necrosis; and (5) hyperostosis and osteosclerosis, the result of the natural tendency toward limitation of the disease.

The dictum may vary that, in the majority of cases of suppurative otitis media, the acute affection has either been neglected or improperly treated, especially by not securing sufficient drainage or by removing nasopharyngeal obstructions. There are only a few exceptions to this, such as in the infectious fevers, especially scarlatina.

According to Gleason², as many as ten varieties of bacteria may be found in a single case, the pus cocci finally predominating. I have seen, in numerous instances, large numbers of pneumococci in smears from chronic suppurative otitis media which presented no other symptoms than those ordinarily found. This was particularly true in cases with polypi.

The fact that many cases remain dormant for a number of years, and then suddenly flare up, is due, according to Loughran³, to the *Streptococcus mucosus capsulatus*. This organism produces extensive destruction of bone tissue and is especially rapid in its action, even while repair is going on.

The necessity for early and proper incisions in cases of acute otitis media does not require emphasis; nor does the inadvisability of leaving the case to spontaneous rupture. There is plenty of diagnostic armamentarium at the disposal of the family doctor, such as the electric otoscope, the x-rays, rhinoscopy, and chemical examination of the pus, in order to determine the severity of the condition. Manual examination of the temporal bone should be made in each case.

ETHER TREATMENT

Given a case of otorrhea, following either an incision or spontaneous rupture, the following procedure should be adopted within the first two weeks of suppuration. If suppuration persists after that, the case falls within the domain of the specialist.

I have adopted with great success, in a number of cases, the ether treatment of McAuliffe⁴. It requires the cooperation of the patient and is safe, reliable and efficacious. It is conducted as follows: All

epithelial and other accumulations are removed from the ear by syringing with warm water at a temperature of 100°F. This is very important, as the combination of the ether with any wax or other substance will render it comparatively inert when it reaches the drum.

The patient is placed in a recumbent position on the side opposite the affected ear, into which ether is slowly dropped. The first instillation sometimes produces some pain. Tolerance to this pain is gradually established, until the whole canal can be filled with ether, which is left until it has entirely evaporated. The procedure is repeated every day for one week and then, gradually, at longer intervals. In cases with large perforations and patulous tubes, the patient can feel the ether on its way to the throat.

While aware of the valuable bactericidal effect of mercurochrome, an objection I have found is in its use in visible inflammatory conditions of the canal and drum, as, after the first application, it is difficult to distinguish the inflammation from the mercurochrome stain.

While a bacteriologic study has not been conducted, I have found the ether treatment considerably enhanced by the instillation of a 1- to 2-percent ethylhydrocuprein hydrochloride (*Numoquin* hydrochloride) solution, after complete evaporation of the ether. While this drug is primarily directed to pneumococcal infections, it is also very valuable as an adjunct in mixed infections, particularly where the staphylococcus is predominating. The employment of the drug was studied by the author⁵ in the treatment of pneumococcal ulcer of the cornea.

It is, of course, requisite only to mention the necessity for constitutional observation, as otorrhea frequently imposes a burden upon the general economy.

In all of the infectious diseases of infancy and childhood, the ears should be systematically examined, even if there are no subjective symptoms. It is only after the fourth or fifth month that infants indicate subjective symptoms, either by putting their hands to their ears, or by crying during nursing. All cases of acute otitis media should be carefully examined to determine the etiology, especially obstructions and infected foci.

In the absence of resolution, with a profuse discharge, where early incision has

failed adequately to drain the abscess, or where mastoid, cerebral or meningeal symptoms occur, the mastoid operation is indicated. During infancy and early childhood, the infection often finds a path of least resistance externally more frequently than in the case of adults, on account of the absence or scarcity of mastoid cells in the pneumatic tissue.

I have had a number of cases of acute mastoiditis in children, where the incision employed in the simple mastoid operation was sufficient to effect a cure; and while this should not be followed as a routine procedure (as, in selected cases, it may be necessary to resort to a more radical operative measure), yet, in these cases, free subperiosteal drainage has very often accomplished complete resolution.

PNEUMOCOCCUS INFECTIONS

I believe the frequency of pneumococci in acute mastoiditis has been overlooked, and that they are often responsible for meningeal complications. Even in the absence of a bacteriologic examination, all local treatments should be augmented by the use of ethylhydrocuprein hydrochloride in a 2- to 5-percent solution.

The recent investigations of Bauer and St. Clair⁶ have thrown considerable light upon the subject, and while their series of observations is small, it should be a stimulus for further studies. Their conclusions show that "in eighteen cases of primary pneumococcus infection of the mastoid cells and meninges, in which the organisms have been typed, Type III pneumococci predominate in the cases following otitis media, and Type IV pneumococci in meningitis without a history of otitis media." As mentioned by these authors, Wirth⁷, in a series of 84 cases of acute otitis media, noted the occurrence of Type III pneumococci in 23.8 percent of the cases.

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15 S. Franklin St.

Jaundice

By WILLIAM EDWARD FITCH, M.D., Bedford Springs, Pa.

JAUNDICE is not a distinct disease entity, but a condition of disturbed metabolism arising from various affections of the liver or bile passages, in which the bile pigment circulates in the blood and stains the skin, sclerae, mucous membranes and various secretions of the body. The shades of discoloration vary from pale-yellow to bright-yellow, saffron, gamboge, orange-brown, with various tints on to a brown-olive hue. Jaundice, as a symptom, appears in so many different diseases of the liver that its separate consideration seems justified.

The metabolism of hemoglobin and bile pigments and their variations from the normal are not clearly understood, nor will they be until we have a broader conception of the less-known types of jaundice, associated with the hemolytic processes; of the disturbances in splenohepatic chemical relations; of pigment metabolism; and of disturbances of liver function.

Etiology

The present conception of the cause of jaundice seems to narrow down to stagnation of bile and its more or less complete exclusion from the intestinal tract. More attention has been paid to the clinical phenomena of jaundice than to its pathologic-anatomic cause and the degree and extent of stagnation. Stagnation and exclusion of bile from the intestine produce, according to the causation, a number of peculiar phenomena, which always repeat themselves, sometimes as the only expression of the disease (as, for instance, in occlusion of the ductus choledochus); sometimes as accompanying phenomena of other metabolic disturbances.

All types of jaundice are due to the stagnation of bile and, according to von Noorden, all are of hepatogenous origin. The stagnation is brought about by an anomaly of the liver function, due to pressure on the larger intra-hepatic bile ducts, or even in the ductus choledochus; by catarrhal inflammation of the mucous membrane; by gall-stones, tumors, etc. Owing to the very low secretion pressure of the bile, a relatively weak pressure against the bile ducts

is sufficient to cause stagnation and to more or less completely prevent the bile from reaching the intestine. When such a pathologic condition exists, the stagnated bile is absorbed, within the liver, into lymph channels which surround the smallest bile ducts, and thus, without the liver cells being affected in any manner, obstruction (reabsorption) jaundice results. Under these pathologic conditions, a part of the bile is diverted by the liver cells into the blood capillaries instead of into the bile capillaries, reversing the natural order (parapadesis). Competent observers conclude that, under these pathologic conditions, the bile becomes so greatly thickened that it, of itself, effectually obstructs the finer bile passages.

Classification

Three types of jaundice are now recognized. The type most commonly met with is due to obstruction in the bile passages. A second type is observed where no sign of obstruction of the bile passages can be found and the liver will apparently be working at maximum efficiency, yet the organ is flooded with bile pigment. This is hemolytic (hematogenous) jaundice.

A third type is occasionally met with, in which the organ is unable to function normally, due to more or less complete injury, possibly necrosis of the liver cells. This is suppression jaundice.

Obstructive Jaundice (Catarrhal-hepatogenous, or choluric jaundice)

The most frequent causes of obstructive jaundice are: (a) Catarrhal inflammation of the duodenum and the common duct, leading to the closure of the opening of the ampulla of Vater (catarrhal jaundice); (2) impaction of gall-stones in either the hepatic or common duct; (3) stricture of the common duct, partial or complete, due either to ulceration or inflammation; (4) pressure of growths within the intestine or ducts, sufficient to hinder the flow of bile; (5) intra-hepatic pressure from tumors of the liver or growths in surrounding organs.

This is the most common type of jaun-

dice met with. Obstruction of the normal biliary flow causes reabsorption of the whole bile, containing bile pigment, bile salts and excretory matter. According to Eppinger, the symptoms of jaundice appear within 48 hours after complete obstruction takes place.

Hemolytic Jaundice
(Hematogenous, hemo-hepatogenous or toxic jaundice)

All types of jaundice caused by extrahepatic conditions are usually termed hemolytic jaundice. In this type of jaundice, all grades of skin discoloration may be observed, from light-yellow to greenish-yellow or brown. Hemoglobin undergoes pathologic changes and is excreted by the liver as bilirubin and by the kidneys as urobilin. It has been thought that these pathologic changes take place in the circulation, and that the liver and kidneys act as organs of excretion. Great quantities of bile pigment are liberated by the liver. The bile itself becomes thickened, viscid and heavy in consistency (pleiochromia). Some observers contend that the thickened bile completely obstructs the biliary capillaries and, as a result, reabsorption in the liver takes place.

The pigments normally present in the bile are excreted and changed in the intestines, by the action of the bacterial flora in the colon, into urobilinogen and related compounds, collectively spoken of as urobilin. This pigment is normally excreted, partly in the stools, a part is destroyed and another part reabsorbed by the portal circulation, so effectively that none of it reaches the urine in detectable quantities.

In conditions of excessive hemolysis there is an increased excretion of bile pigments—with a corresponding increase of urobilin formed in the intestines. While a greater part of this excessive urobilin is excreted by the intestines, yet an excessive amount is absorbed by the portal capillaries, throwing an unusual strain upon the hepatic function in removing the pigment from the blood stream. When this function is severely taxed, for long periods, considerable urobilin will escape into the general circulation and finally be excreted by the kidneys. It is not an uncommon occurrence to find urobilin in the urine of patients suffering from disorders associated with pathologic blood destruction, such as pernicious anemia, hemolytic jaundice, paroxysmal hemoglobinuria, etc.

**Suppression Jaundice
(Toxic Jaundice)**

This type of jaundice is not very frequently observed. It follows more or less complete injury of the liver cells, resulting in suppression of the liver functions and pigment stasis in the liver. The bile salts are not secreted or reabsorbed and other liver functions are involved, such as urea and fibrinogen formation, glycogen storage, etc. This condition is always found in yellow fever, phosphorus poisoning and acute yellow atrophy of the liver. In extensive injury to the liver, hepatic functional insufficiency rapidly develops. In less extensive injury, hepatic regeneration maintains efficient functional activity of the organ.

SYMPTOMATOLOGY

In obstructive jaundice all of the secretions of the liver are reabsorbed into the circulation. The blood and urine are surcharged with bilirubin and bile salts and the tissues soon become heavily stained with bile pigments. The sclerotic membrane of the eye takes on a light-yellow discoloration, and the skin of the whole body rapidly becomes saffron-like in appearance. The stools become clay-colored and of a putty-like consistency. The urine becomes heavily laden with large quantities of bilirubin and bile salts, but lacks urobilin. The color of the urine varies from a deep-yellow to a dark-brown and imparts a yellow tinge to the undergarments. The sweat of the body is also charged with the bile pigments and stains the linen. The tears and saliva are the only excretions of the body which are not charged with bile pigments. There may be constipation, with ill-smelling stools. Other gastrointestinal disturbances, such as anorexia, nausea, fetid breath and fulness of the epigastrium after eating have been observed. In simple obstructive jaundice the pulse is usually slow and infrequent—50, 40 or even 30 pulsations per minute. Headache, vertigo and depression of spirits are common annoyances. The vision deviates from the normal. Objects sometimes appear to have a yellow tint; some have clearer vision in an obscure light (nyctalopia); other jaundiced patients have difficulty in seeing at night.

In hemolytic jaundice the symptoms closely resemble those of the obstructive type. In the former the urine contains

urobilin, while in the latter it is absent. Likewise the circulation is nearer normal than in obstructive jaundice, though it is not always an easy matter to draw a sharp line of demarcation between these two types.

This type of jaundice is due to the change of hemoglobin into the hematoidin, which is identical with bilirubin. There is always a rapid destruction of large numbers of red blood corpuscles—hemolysis—the hemoglobin being rapidly converted into bilirubin in the liver, in most instances.

In suppression jaundice there is epigastric pain and tenderness; nausea and vomiting develop rapidly; there will be hemorrhages from the gastrointestinal tract; the urine will contain albumin and casts; bradycardia complicates the clinical picture; the blood serum is markedly yellow and contains large amounts of bilirubin with traces of bile salts.

DIETOTHERAPY

Diet and hygiene are the first considerations in the treatment of jaundice. Rich, highly-seasoned foods, rich pastries, fats, fat fish, hot meat, spices and sweets are to be interdicted; starchy foods, lean meats, bread, thin soups (no fat) and green succulent vegetables may, however be used in moderation. Skimmed milk and buttermilk in Vichy may be used freely. It is thought advisable to amplify the foregoing by outlining, in detail, examples of appropriate dietaries in jaundice.

Dietary No. 1 is easily digested, largely protein in character and free from fat. Its nutritive energy is small, but amply sufficient for the first three or four days of the illness, after which dietary No. 2 may be ordered.

DIETARY NO. 1

	Calories
7 A.M. 10 oz. Bedford magnesia water (hot)	.....
Breakfast—8 A.M. 10 oz. skimmed milk, thickened with white of egg or albumin water; 1 slice of toast without butter	203
Lunch—10 A.M. 10 oz. buttermilk	116
Dinner—1 P.M. 10 oz. clear soup, thickened with rice; or 10 oz. beef-tea, thickened with meat juice; or 10 oz. beef- tea, thickened with scraped beef;	.....

slice of toast or roll; pudding (not made with egg); stewed fruit without cream; a little milk.....	285
Tea—4 P.M. Cup of tea with little sugar; half slice of toast.....	160
Supper—6 P.M. 10 oz. skimmed milk (a little sherry may be added if desired, as a flavoring agent); an invalid food	280
10 P.M. 5 oz. Bedford magnesia water.....	.....
Total calories.....	1,044

Later on, as the appetite returns and the stomach is more tolerant of foods, the diet can be gradually increased. The following, in my experience, has given satisfactory results:

	Calories
7 A.M. 10 oz. Bedford magnesia water (hot)	.....
Breakfast—8:30 A.M. A cup of freshly-made tea with a little milk, crisp toast without butter; piece of steamed fish or slice of ham, tongue or chicken....	362
Lunch—10 A.M. 10 oz. fresh buttermilk; 1 sweet biscuit	196
Dinner—1 P.M. A cup of sago soup; a small serv- ing of white fish, or a piece of chicken or pheasant, broiled, or a tender "eye" of mutton chop, or a piece of roast beef; spinach or cauliflower or 8 oz. of fresh apple cider	385
Tea—4 P.M. One cup of tea and 1 dry rusk with butter and milk.....	217
Supper—7 P.M. A cup of sago soup; a small serv- ing of white fish, or a piece of breast of chicken or pheasant, or "eye" of mutton chop; piece of dry toast with gravy; 8 oz. of fresh apple cider.....	267
9 P.M. 1 glass of Bedford magnesia water; glass milk	150
Total calories.....	1,577

DRUG TREATMENT

Intestinal antisepsis should not be forgotten. The antiseptic action of the bile

exercises an important function in health and in disease conditions of the liver. Since that organ is functioning below normal, it should be stimulated, calomel being the drug of choice, given in small doses—0.05 Gram (3/4 grain). It may even be thought best to begin with 0.02 Gram (1/3 grain), and repeat every day for ten days. If symptoms of salivation set in, the drug should be stopped at once.

In hemolytic jaundice the treatment should be directed to the blood disturbance. When this is due to hookworm disease or intestinal worms, it may be promptly relieved by the ingestion of the proper anthelmintics; when due to malaria, quinine is the drug; when due to syphilis, prescribe mercury.

To stimulate hematopoiesis, direct from 50 to 100 Grams (1½ to 3 oz.) of calf's bone marrow, made into sandwiches, daily for several weeks. If there be itching, lukewarm baths and douches or a one-percent phenol solution will prove comforting.

A few weeks stay at a resort or sanatorium, where suitable baths can be administered, is most helpful. A spa with a magnesia sulphated water, such as Bedford magnesia water, which produces a cholagogue effect and stimulates the gall-bladder and ducts, will be doubly helpful.

CROUNOTHERAPY

An important consideration in the treatment of jaundice is to stimulate the hepatic function and to keep the bowels active by the use of saline aperients in sufficient dosage to produce watery stools. The aperients of choice are Epsom and Rochelle salts. The natural mineral waters carrying these two salts in solution are preferable to the apothecary's salts. European physicians highly commend the natural mineral waters such as Carlsbad, Hunyadi Janos, Marienbad, Rubinat, and Friedrichshelle.

In our country the Saratoga and Bedford Springs waters are highly extolled. Dr. James Tyson, of Philadelphia, in his "Practice of Medicine" says: "The Hathorn Spring water, at Saratoga is especially valuable, and the Bedford Springs waters, at Bedford, Pennsylvania, are also useful. No better course can be pursued, by those who can afford it, than taking the cure at the springs." The "double salt" action of the Bedford magnesia water

exerts a stimulating action on intestinal peristalsis and the excretion of bile.

It has been proven by elimination tests that water metabolism is greatly disturbed in diseases of the liver. This is due, in part, to the hypertension in the portal vein, and in part to disturbances in the physicochemical equilibrium of water between the intestinal tract, blood, tissues, interstitial spaces and the kidney parenchyma.

Two factors are of great importance: First, the water must be given in small doses and the patient should be in the dorsal decubitus, because the stasis in the portal vein, which is always more or less present, prevents the rapid resorption of the water and contraindicates larger dosage. If rapid resorption were possible, the effect would dangerously increase the volume of circulating blood. Small and frequent doses are well tolerated, and sufficient is absorbed to act upon the liver and upon the whole organism, without any untoward effect upon the hydraulics of the circulation. The horizontal posture lessens the inclination to portal stasis and eases the passage of water from the intestine to the capillaries.

BALNEOTHERAPY

Systematic bathing exerts a beneficial effect: It causes elimination through the skin and relieves the annoying itching. The electric cabinet bath is used for 10 minutes or until free diaphoresis occurs, then the hot spout bath, with a temperature of 100° to 102°F. (37.8° to 38.9°C.), raised slowly to 113°F. (45°C.), at the same time increasing the pressure, and continued one-half to one minute, followed by a general cold or luke-warm douche. This yields splendid results in hepatic congestion, hypertrophic cirrhosis, biliary stasis, and chronic jaundice.

High colonic flushings with cold water have been recommended by Osler and Anders in this country and by Strumpell and others abroad. These authorities recommend such douches at a temperature of 60° to 70°F. (15.5° to 21.1°C.), daily, in quantities of one to two quarts. It is claimed that the cold water excites peristalsis in the gall-bladder and ducts, and thus aids in the expulsion of plugs of mucus obstructing the flow of bile.

NON-SURGICAL DRAINAGE OF THE BILIARY PASSAGES

Lyon¹ has recommended the introduction of magnesium sulphate solutions, by means of the Einhorn duodenal tube. Meltzer², of the Rockefeller Institute, said: "In experiments with magnesium sulphate I observed that the local application of a 25-percent solution of the salt to the mucosa of the duodenum causes a complete local relaxation of the intestinal wall. It does not exert such an effect when the salt is administered by the mouth, that is, when it has to pass through the stomach before it reaches the intestines."

Prof. Meltzer thinks the use of the duo-

1.—Lyon, Vincent: "Diagnosis and treatment of Disease of the Gall-bladder and Ducts," *J.A.M.A.*, Sept. 27, 1919.

2.—Meltzer, S. J.: "Diseases of the Bile-duets and Gall-Bladder," *Amer. Jour. Med. Sci.*, April, 1917.

denal tube has reached an efficient practical stage and suggests its use in all cases of jaundice. He further states, "It may relax the sphincter of the common duct and permit the ejection of bile and, perhaps, even permit the removal of a calculus of moderate size, wedged in the duct in front of the papilla of Vater."

Lyon¹, commenting on Dr. Meltzer's statement, says: "This study, conducted for 15 months in France, on men in the U. S. Navy Base Hospital No. 5; for 6 months in the clinic of the Jefferson Hospital in Philadelphia; in the wards of the Methodist Episcopal Hospital; and in the author's private practice, is a study which has now been made on more than 100 cases, with a total of nearly 1000 observations. We have proved and are now in a position to demonstrate that Meltzer's assumption is correct."

Science and Art

Science does its full share of work for medicine; for no other art does it do so much. But we err greatly if we accept it as a certain and sole guide. For science itself is unstable: The science of the last century is the folly of today, and much of that on which we pride ourselves as certain will be found in the lumber-room of the next generation . . . It is because art is uncertain, and science both erroneous and incomplete, that successful medical practice depends upon the individual man so much more than on either the science or the art of medicine in itself considered; upon his ability to observe phenomena accurately, thoroughly, and honestly; on his capacity to apprehend their relations to their causes and to one another; and upon his personal skill in selecting, combining, and applying remedies. A physician in the highest sense is an ARTIST, whom no amount of knowledge and no degree of culture can ever elevate to a high rank in his profession unless he has the perception of form, color, proportion, and the manifold qualities and relations of things, which is a gift of genius as certainly as the poet's, the painter's, the sculptor's or the architect's artistic eye.—From the Presidential Address of DR. ALFRED STILLE in 1871 (A.M.A. Bul., Dec., 1928).

THE SEMINAR

CONDUCTED BY

MAX THOREK, M.D. (Surgery)

GEORGE B. LAKE, M.D. (Medicine)

[NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office *not later than the 1st of the month following the appearance of the problem.*

Address all communications intended for this department to *The Seminar*, care CLINICAL MEDICINE AND SURGERY, North Chicago, Ill.]

PROBLEM NO. 5 (SURGICAL)

Presented by Dr. Max Thorek, Chicago
(SEE CLIN. MED. AND SURG., APRIL, 1929,
P. 258)

Recapitulation: A woman of 43 years noticed a swelling in her right breast in September, 1927. This grew larger and broke through the skin in July, 1928, since when it has been progressing steadily.



Fig. 1.—Patient when first seen.

Her normal weight was 118 pounds; present weight 100 pounds. The right breast was necrotic and discharging (see illustration) and the tissues under the mammary gland were involved. The axillary lymphatics were palpable and hard.

Requirement: If such a patient came to you for treatment, what would you do?

DISCUSSION BY DR. J. R. SMITH, WARSAW, Mo.

My first thought would be, righteous indignation. I certainly would feel like swearing at the ignorance shown by all the former attendants, physicians and laity.

My second, would be to tell this poor woman her exact condition, and show her that there was only a faint hope for any permanent recovery and that the only chance left would be complete extirpation of the entire breast and glands in the axilla and neck. With this done, she could hope for at least a year to eighteen months' extension of life, with a bare possibility of complete recovery. Without the surgical (complete) operation, it meant sure death, and that close at hand.

Had this surgical work been done in 1927, when she first noticed the swelling, there would have been little doubt as to her recovery and complete cure.

This case ought to be an object lesson, to the medical profession and the world at large, to watch carefully for every lump in the breast, no matter how harmless or small it seemed to be. Consider them as enemies until they are completely removed; the sooner the better. At this stage the disease has infiltrated through the entire system, and very seldom is it possible to cure.

This is, without doubt, cancer, with a possible tuberculous complication, regardless of freedom from similar disease in the immediate family history. Trace back to the third and fourth generation and you often find something.

If this woman is cured, she can thank God and Dr. Thorek for wisdom to recognize and to do what was immediately needed. Conservatism here, often means

the loss of life. Immediate action, by one skilled and fearless in the use of the knife is the only hope in these cases. Every medical college ought to require of every graduate, constant watchfulness for such cases.

**DISCUSSION BY DR. GEORGE ACHESON,
ST. MARTINS, N. B., CANADA**

I take it for granted that this is a case of mammary cancer in an advanced stage, and I would advise this woman to make her peace with God, settle her earthly affairs, and resign herself to the inevitable with what composure she may, as I do not think she is long for this world.

I may be too pessimistic in my prognosis and I would not dogmatize, for I am very loath to pronounce the death sentence on any patient. I have seen too many recoveries from what looked to be hopeless conditions, to make positive assertions in this matter of life and death.

However, to give such advice to this woman, and then take my leave without attempting to do anything to ameliorate her condition, would, of course, be unfeeling, inhuman and utterly opposed to all professional ethics and instincts. While, in my opinion, her case is incurable, much can be done to make her lot more endurable.

We are not told whether or not she suffers pain. Presumably this is a symptom not altogether absent, and which will become more evident as time goes on. Anodynes should be administered as indicated, depending at length on morphine, in whatever doses may be required to secure comfort and rest. Antiseptic absorbent dressings should be applied to the necrotic, discharging tumors, the particular kind of dressing being a matter of choice with the attending surgeon. Personally, I favor a moist gauze dressing, with chloraminc (Chlorazene) as the antiseptic. All dietetic and hygienic measures which are indicated, and everything conducive to the patient's comfort should be carried out.

Some surgeons might advocate a radical operation, with subsequent use of radium, but I am afraid, in the stage which this case has reached, that it is too late for operation. It is altogether likely that, since the axillary glands are involved, the parasternal chain is also invaded, and that, even if she survived the shock of a mutilating operation, recurrence would take place in connection with these glands.

**DISCUSSION BY DR. J. R. STURR,
MINNEAPOLIS, MINN.**

1.—This patient is carcinomatous and, I believe, incurable.

2.—Treatment is surgical — removal, followed by high-voltage x-ray irradiations.

3.—Before surgery is done, her lung, pelvis and spine should be examined roentgenologically for metastases. This is highly important!

4.—The surgery, if there is a question as to metastases in the axilla, should be preceded by removal of one of the small, hard axillary glands, which should be examined by a pathologist at once, by frozen section, the surgeon awaiting the report.

If metastases have occurred, the chances for cure are removed and then the requirement is removal of the breast palliatively, followed by high-voltage x-ray treatment of the operative area and the axilla. The mass between the breast and the anterior axillary fold also should be excised widely, in one piece with the excised breast and its underlying muscles.

5.—If the axillary glands do not show involvement, I should excise the breast, with a wide area of the surrounding skin, the anterior muscle of the chest and axilla, together with the glandular contents of the axilla, in one piece.

This can be done by scalpel surgery with good hemostasis, by clamping and tying every bleeding point, or by the surgical diathermy knife as the dissecting scalpel.

In my opinion the scalpel is just as good, if the veins are immediately clamped, so far as releasing cancer cells into the circulation goes, because, at the time of severing the vessels, all the flow of blood is into the resulting wound, and not out of it, due to the pressure of the blood stream in the veins, necessary for the circulation of blood. So far as I know, there is no aspiration by any vein when it is cut, except the large veins inside the thorax.

6.—I believe this case probably falls into the incurable type and needs palliative excision of the breast and the secondary mass between the breast and axilla, with postoperative x-ray therapy.

7.—Over and above all, the lesson is again, *every tumor of the breast*, particularly in women of 40 (as she was), is *surgical* and that surgery is *cancer* surgery, until a good pathologist says the growth is benign.

In 1927 she could have been saved. Now she will probably survive whatever attempt is made for approximately 6 months, and probably not over a year.

**DISCUSSION BY DR. E. C JUNGER,
SOLDIER, IOWA**

If that patient came to me tonight I would either be "not at home", or I would tell her, "Prepare to meet thy God."

Christian Science is all right, excepting that it lacks all traces of science and is not Christian.

If those people would employ a few of the best physicians available and let them select the material suitable for their doctrine, they would show some intelligence and a speck of fellow feeling.

The only living God is revealed all through nature, by science alone, and if there is any hell it is ignorance, and every ignoramus is in it, every day of his life. Death gets him out.

If this woman hasn't an inoperable carcinoma I'll join these Christian Scientists.

SOLUTION BY DR. MAX THOREK, CHICAGO

I am delighted with the wholehearted discussion by the readers of the Seminar.

Dr. Smith has summed up the case most admirably, and has given accent to the most important factors bearing on the situation. His display of indignation about the ignorance of the former attendants cannot be too strongly emphasized. They deserve both damnation and condemnation. To permit a young woman to get into this state would, perhaps, be excusable in the Dark Ages, but one feels sick at heart to think that, in this enlightened (?) century in which we are living, there are enough numbskulls to permit human beings to rot under their ignorant eyes. It is a sign of the times. If a pauper steals a loaf of bread, when he is hungry, he goes to jail: If some quack condemns, by his ignorance, young people to a frightful death, no one seems to bother. I would suggest to my readers that they glance over Dr. Smith's discussion and observe the thoroughness with which he has analyzed the case from every angle, without becoming verbose or dilatory.

Our friend General Acheson's discussion is also to the point, fearless and unbiased. He is inclined to take a rather conservative view of the case, in the sense of not being inclined to advise radical interference in

operative manipulation. I do not blame him. Just take another glance at the picture and see the ichorous mass of degenerating breast, the size of a child's head, engulfing the greater part of the right thorax, with evident axillary involvement, and you will also feel somewhat reluctant to approach the case from a radical standpoint. You would think twice or maybe a dozen times. I did. While General Acheson suggests that "some surgeons might advocate a radical operation, with subsequent use of radium", he continues, "I am afraid, in the stage which this case has reached, that it is too late for operation". We will see a little later just what was done and how we are progressing thus far.

I recommend you to read the discussion by Dr. Sturte. His optimism is splendid. It is worth while for us to remember what he says. Of particular value to all of us are his remarks anent the use of the scalpel, calling particular attention to the direction of the blood flow, and his views about cancer implantation via the blood stream. This aphorism is worth pondering over. It has given me a great deal of food for thought. To enter into this discussion would lead us too far afield. It may be a splendid suggestion for discussion in a special issue. We may do that later, for it is truly worth while.

It seems to me that we should engross the statements of Dr. Junger and hang them up in our consultation rooms. The dear public needs just such education.

Now then, I shall state what was done in our case. The question of cancer of the breast having been established, without a shadow of doubt, and the absence of metastases in the axilla having been ascertained (x-ray studies of the mediastinum and the thorax having proved negative), we decided to proceed surgically.

The patient was anesthetised with ethylene gas. The preoperative preparation, as far as anesthesia was concerned, consisted in giving the patient an H.M.C. No. 2 (hyoscine hydrobrom., gr. 1/200; morphine hydrobrom., gr. 1/8; cactoid, gr. 1/120) at 7:00 o'clock in the morning and a similar dose again at 8:00 o'clock.

I removed the entire breast *en bloc*, taking with it the axillary structures (glands, fat, and areolar tissue). The axillary vessels and nerve structures were treated with extreme gentleness and surgical respect. There was little shock follow-



Fig. 2.—Area left exposed upon removal of breast.

ing the operation. The entire procedure lasted about forty minutes. It should be added that the pectoralis major and minor and the deep pectoral fascia were all dissected away. The patient was sent to bed in a satisfactory condition.

The structures removed left an exposed surface, as depicted in Fig. 2.

The postoperative reaction was good. The patient picked up. The exposed surface granulated satisfactorily and, after a week, I began to ponder about the best method to close the defect of the chest wall.

I returned the patient to the operating room and, under ethylene gas, with the usual preoperative preparation, I did a plastic operation, undermining the skin



Fig. 3.—Free skin transplant from undermined skin covering the upper part of the abdomen.

well above the clavicle, well down over the abdominal wall, continuing this mobilization past the latissimus dorsi in the back. This produced flaps of an irregular outline, which, when approximated, would not cover the exposed chest wall. I then cut off, a triangular piece from one of the flaps and sutured it between the gaping edges of the mobilized portions of the skin. If you will observe Fig. 3, it will show you the triangular flap occupying the middle of the field, which please remember was a free transplant to act as a bridge between the other skin edges.

We were fortunate to get a good union and, except for a little marginal discoloration here and there, from pressure necrosis, the graft took and the patient was able to take leave of the bed in a very short time. She remained in the hospital two weeks longer and, at the time of discharge from the institution, she presented the appearance as shown in Fig. 4.



Fig. 4.—Patient at time of discharge from the hospital.

We used the usual method of radiation, in the form of x-rays and radium, to build the patient up as much as we could and to minimize the danger of recurrence.

Six months after the operation, a letter from her (yesterday) states that she is doing her housework, has gained fourteen pounds, feels well and is looking into the future through rose-colored glasses.

Now, gentlemen, I know that you are interested in this case and would like to know the further progress. If you will communicate with me, I will give you, every once in so often, a report as to the condition of the patient and how long we will be able to

keep her alive and in good health before another flareup sets in. I hope it never will!

PROBLEM NO. 6 (SURGICAL)

PRESENTED BY DR. MAX THOREK, CHICAGO

A man 67 years of age, with nothing of importance in the family history, was admitted to the American Hospital, Chicago, for observation.

He had had no previous illness, other than rheumatism twenty years ago. The appetite was good; bowels slightly constipated. He drinks coffee moderately and smokes a pipe, but not to excess. He has never had any surgical operation.

He presented the following complaint: Six months prior to admission to the hospital, the patient first noticed difficulty in swallowing food. This was associated with a sensation of pressure, bordering on the lower part of the left chest and back. Gradually the difficulty in swallowing food increased and his pain became more acute. When seen he was able to swallow only liquids or very soft food. He had lost thirty pounds in weight in the last six months. When he belched, he felt relieved.

Upon physical examination we found a rather emaciated man, but a thorough physical survey proved negative. His blood pressure was 140 mm. systolic, with a diastolic of 70. Nothing was found in the urine. The blood picture showed hemoglobin 75 percent, erythrocytes 4,000,000, leukocytes 7,800.

On April 19, he was made to swallow a liquid, consisting of barium and milk. The fluoroscope disclosed, about the mid-portion of the esophagus, a constriction. Above this constriction was a dilatation, and another dilatation below the constriction. Surrounding the constricted portion,

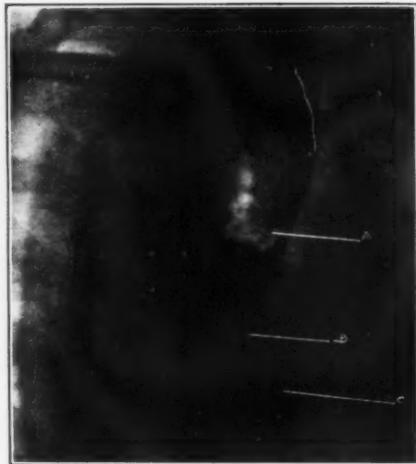


Fig. 5
(a) Dilated portion of esophagus; (b) Constriction and filling defect; (c) Lower portion of esophagus.

there was an apparent mass, of irregular outline.

The patient subsisted, while in the hospital under observation, on liquid diet. He complained of difficulty in swallowing. On the day following admission we put him on atropine (Bellafoline, one ampule three times daily). A few days after the Bellafoline therapy was commenced, a considerable improvement was noticed. The patient swallowed liquids without difficulty and, to the surprise of his attendants, he could imbibe soft food, such as cereals, etc.

A glance at the appended x-ray picture will show the constriction and the dilatation, as well as the appearance of the pathologic area under the fluoroscope.

Requirements: What do you suspect in this case, and in what direction would your differential diagnosis run? Also, what would you do for him?

Study and Thought

To advance in any line of life's endeavors it is necessary both to study and to think. Achievement is possible to those who have the initiative and determination to equip themselves with knowledge. This requires application and study continued beyond the period of formal school and college courses. But it brings practical results in cultural, as well as vocational accomplishments.—E. A. GRACE.

CLINICAL NOTES AND PRACTICAL SUGGESTIONS

Modern Methods and Medical Organization

APPARENTLY there is no dearth of reasons as to why the medical profession finds itself in such a dilemma relative to a choice of ways and means to combat the movement or influence which is encroaching upon the field of medical activity of the individual doctor. The collective medical bodies, both local and state, find themselves, apparently, quite unable to cope with the situation of corporate medical free clinics, pay clinics, welfare stations, endowed hospital clinics and other seemingly malign encroachments.

It is not to be wondered at when one considers the lethargy, the complacency and the unbusinesslike methods of the average doctor, his lack of vision, his apparent inability to appreciate the value of potent organization and his stubborn, blind adherence to traditional methods.

This is an age of specialization, organization, business mergers, so why should the profession of medicine hold itself aloof from progressive methods? The changes are evolutionary and inevitable and the problem for the profession is one of adjustment; and if these innovations are constructive (which they appear to be), why object?

One cannot, successfully, combat constructive innovation for any great length of time, and when natural collective effort invades a field of usefulness, for a constructive change, obsolete methods must go. Constructive endeavor tends to concentrate energy and, no doubt, renders better service, along any line of activity.

Old, traditional methods of practicing the medical art are fast disappearing, and

rightfully so, for the reason that many are archaic. Progressive reform will of necessity change the tenets of the profession, as antiquated procedures have no place in modern medicine any more than they have in modern business. It is to be remembered that the primary and fundamental object of the healing art is to prolong life, but the obvious reward is financial, and such reward is not only desirable but an essential and laudable ambition. A permanent and useful service to the public cannot be rendered unless profits are adequate.

Proper service and results can be better achieved through properly equipped modern agencies and, obviously, by men of integrity, ability and training. A suitable environment is necessary for the application of new ideas, research and any procedure which will ultimately redound to the benefit of mankind.

Isolated individual effort will probably not achieve great ends, and the individual physician needs the help and assistance of collective, organized modern medical and surgical effort if he is to progress and render the best service to his patient.

The basic principles of management should be applied to organized medicine, as in any other business enterprise, and when such effort is effectual, profits are the result. The altruistic spirit is to be encouraged, but without pecuniary reward it is of little value. I cannot conceive of the adverse attitude of physicians towards progressive medicine or the advanced ideas as to its application as anything but an acknowledgement of their own inferiority and lack of foresight in not sensing the

changing conditions. Any individual or class of individuals who has the effrontery to believe that they can abrogate the rights of the people to choose what, to them, appear to be progressive methods in the handling of the sick, certainly do not appear to use sound reasoning.

What is needed is a real vision of the power of organized, efficient business management, applied to a problem much in need of progressive ideas as how best to serve sick people in the best manner, at a cost commensurate with their ability to pay, in an environment provided with all the modern methods of procedure and by a coterie of men proficient to render service, in all its branches. This service should be charged for, in every instance where circumstances will permit, and every patient should have the benefit of the collective knowledge of the staff when such is necessary to achieve the best results. In some such way will the interest of all be conserved.

Individual action is necessarily restricted by the great demand of mass invasion, and attempts to limit mass supervision of health will probably be futile. It is an economic problem and, sooner or later, it may require a more extensive paternalism of the state to care adequately for it. We must all realize that there is no such thing as individual personal liberty when such infringes upon the rights of the people. The problem is not individual, it is state and national and, eventually, will be dealt with as such.

The responsibility for the high cost of medical care has been placed upon the doctor. Such a charge is nothing but blatant misrepresentation, by irresponsible and misinformed blunderers. Properly compiled statistics relative to the doctors' incomes, from localities considered prosperous, such as large cities and industrial centers, would, no doubt, reveal the astonishing fact that, considering the doctor's mental equipment, he is, beyond a doubt, the poorest paid man in the professions. There are many reasons for this and probably much of the onus would have to be borne by the misguided, long suffering, unbusinesslike altruist, with a misconceived idea of the basic principles of right action.

There is no doubt that our hospitals and the nursing fraternity are the real offenders and contribute very materially to the high cost of medical and surgical care and, when

the average middle-class patient pays the hospital and nursing bill, very little, if any, money is left for the doctor. As a matter of fact, there are times when the doctor has to wait many months before he is able to collect even a portion of his bill, and the longer he waits the less the patient considers that he owes it. The time to collect money is when the patient is grateful for services rendered; and gratitude is a very fleeting thing.

Place the responsibility where it belongs and let our medical societies use their influence to bring about a much needed reform. It would appear that our doctors do not realize what a wonderful potency is represented in our medical societies, and, if it were properly and efficiently harnessed with advanced and modern ideas of practical business methods, such as should be applied to medical practice, there is no telling what wonders it might achieve.

ROBERT S. GREGG, M.D.
Chicago, Ill.

Oral Manifestations of Syphilis

THE importance of recognizing syphilitic lesion of the mouth is quite apparent. The dentist should be in position to make a differential diagnosis between actual syphilitic lesions and those that are sometimes easily confused with them. He is then enabled to take the necessary precautions for his own protection; make sure that the patient is under or is directed to competent medical care; and, as a result, protects the community, which is threatened with infection from syphilitic lesions in the mouth almost as much as from any other source.

The diagnosis of syphilis in the mouth is not always easy. Very often it closely resembles other pathologic conditions, but usually has some characteristic feature which, if known, at once places it in the true classification. The Wassermann test, if positive, is often of valuable assistance, as is also the history of the patient. Resort to a dark-field examination for a demonstration of the spirochete of syphilis is often necessary and frequently makes a positive diagnosis possible. However, a thorough knowledge of the clinical appearance of the lesions is the most important factor in diagnosis by the dentist.

Manifestations of syphilis in the mouth may be, and often are, present in all three

stages of the disease. It is important for the dentist to recognize which stage is represented. The patient is often unaware of the true condition and the dentist must be very careful of his attitude, in order that the patient may be placed in the correct frame of mind to cooperate with him in seeking medical aid, or to inspire confidence if the patient is already under the care of a physician.

The primary lesion of syphilis appears at that point on the body which serves as the portal of entrance for the organism responsible for the disease. This is known as a chancre and, in order of frequency about the mouth, appears on the lip, tongue, tonsils and gums, by far the greatest percentage being on the lip. There is an incubation period of about three weeks between the time of infection and the appearance of the initial lesion, which appears as a papule and varies in size at first but continues to enlarge and finally becomes flattened out into a round or oval ulcer. On the lip the ulcer is seldom elevated above the surrounding mucous membrane and when palpated feels like a ring of cartilage, buried in a mass of subcutaneous tissue. The area is not definitely circumscribed. There is scanty secretion and no pain.

The absence of pain and the associated enlargement of neighboring lymph nodes, which are also painless and freely movable, serve to differentiate a chancre on the lip from an epithelioma, which is usually covered with thick pus, circumscribed with a raised, hard wall of tissue and bleeds easily. The location is also a factor in determining a correct diagnosis. The chancre usually appears at the median line of the upper lip; whereas an epithelioma is most frequently found laterally, on the lower lip.

The accepted method of determining the presence of *Treponema pallidum* at this stage is by use of the dark-field examination of a smear taken from the lesion. A serologic examination should also be made, where the primary stage of syphilis is suspected. The reaction may be positive, but a negative result does not preclude its being a syphilitic lesion.

The dentist should be particularly careful to take note of any lesion that might possibly be a chancre, because, if discovered at this early stage, the disease yields readily to proper treatment and the patient will be forever grateful.

The lesions of syphilis during the second stage are known as mucous syphilitides or mucous patches. A true mucous patch is usually oval in shape, grayish white, slightly raised, moist, superficial, and leaves a raw bleeding surface when scraped off. There is also frequently present in the mouth during the second stage a lesion known as the erosive syphilitide. This lesion may be round or oval and is either redder than the surrounding tissue or a glistening gray. The contrast in color makes the lesion quite discernible.

Manifestations of syphilis during the secondary stage are particularly difficult to diagnose, because of the varying appearance of the lesions, due to the many other possible pathologic conditions that may be superimposed upon the affected areas.

Mercurial stomatitis, severe enough at times to lead to ulceration, may be difficult to differentiate, particularly in those patients who are undergoing treatment with mercury for the syphilitic condition. The ulcerations due to mercury, however, are usually grouped in a regular line along the gingival margins and accompanied by excessive salivation.

The grayish patches of diphtheria may sometimes be confused with mucous patches, but may be differentiated by the fact that they are firmly adherent and are definitely circumscribed by an inflammatory areola. A bacteriologic examination will definitely differentiate the two.

The mucous patch is probably the most contagious lesion of syphilis. Hence the necessity that the dentist recognize the condition, not only for his own protection, but that he may take particular care to sterilize all instruments thoroughly and avoid possible transmission of the disease to other patients.

Syphilitic lesions accompanying the third or tertiary stage frequently occur in the mouth, but are not so prevalent as those during the secondary period. The lesion usually begins in the submucous areas as a localized, painless swelling which softens slowly and breaks down. In those tissues which do not impede its progress, it extends rapidly, destroying tissue as it spreads. Gummatous ulcers of the soft palate spread more slowly but often break down, destroying bone, with eventual perforation of the hard palate. Destruction of the nasal bones and septum causes the characteristic "saddle-nose".

In addition to the oral lesions of acquired syphilis, there are to be considered the lesions of congenital syphilis. The lesions are similar, but differ in nature and locality. The common mucous patch in congenital syphilis is smaller, with a whitish surface. The lesions extend deeper and radiate, to form later, radiating scars which are characteristic of the congenital infection.

The presence of typical Hutchinson's teeth, while not pathognomonic of congenital syphilis, should always serve as a signal to search further for additional evidence. Hutchinson described the condition as a crescentic notching of the upper central incisors. The notched teeth are thickened antero-posteriorly and are usually accompanied by first molars showing hyperplasia of the cusps. The work of Gardner and Stokes has pointed out that it is possible to recognize typical Hutchinson's teeth before their eruption, by means of x-rays. The association of such teeth with keratitis and congenital deafness is almost a positive diagnosis of congenital syphilis.

The dentist's responsibility lies in making as complete a diagnosis as possible of all conditions suggestive of syphilis and, if the patient is not receiving medical attention, in impressing upon his mind the necessity for doing so, for his protection and the protection of society as a whole.

L. E. HILL, D.D.S.,
Waukegan, Illinois.

Misuse of Pituitary Extract

THE indiscriminate, or rather injudicious, use of Pituitrin (pituitary extract) in labor is unfortunately prevalent.

An obstetric patient of mine has just had her first prenatal examination, and informed me that at her last confinement the head did not engage in the brim of the pelvis until she had been in labor for two days, and during that time she had had numerous injections of Pituitrin, which, although exciting the most excruciating pains, had no effect in hastening her delivery.

There is a time and there is a use for Pituitrin, and when ill-timed or ill-used there are sometimes unfortunate results. Its imprudent use may result in a stillborn infant.

A strongly contracting uterus with an obstructing or undilated cervix or perineum, plus 1 cc. of Pituitrin, may result

in a ruptured uterus with most disastrous sequelae.

However, there is a happy, fortunate, and preferential time for its administration —when the cervix is fully dilated, the perineum soft and relaxed, the retardation of labor due only to insufficient contractile efforts of the uterus, with no determinable physical obstruction; then the administration of 0.5 cc. of Pituitrin will show results that will, not only gratify the physician, but will compensate him for his delay in its use.

R. S. MACARTHUR, M.D., C.M.
Los Angeles, Cal.

First Seven Years of Child's Life Most Crucial

THE first seven years of life are the most crucial. It is during this early period that the child forms the basic mental habits and acquires the characteristics that will most profoundly affect the later life. This opinion of the enormous importance of the earlier years influencing the entire later life of the individual is expressed by a distinguished group of child specialists, doctors, psychiatrists, educators and ministers.

"If a child has been badly managed up to the age of seven years, it is impossible to correct completely the difficulties in the emotional slant of the child," says Dr. John B. Watson.

"The years from two to seven are the most important years of trail blazing, years that establish the character traits," says Dr. William Palmer Lucas.

"Unconsidered and apparently trivial details in the behavior of the parents during the first five years of the child's life make a far greater impression on its mind and have far more weight in the formation of its character than any other factors occurring later," says Dr. Paul Bousfield, of London.

Dr. Douglas A. Thom, who has conducted research at the Boston Habit Clinic, stresses the importance of the first seven years, but believes that these are not necessarily the "determining years." He says: "Many of the 'conduct patterns' that are to be utilized during the lifetime of the individual are formed during these years, but some of these patterns will be discarded, others will be developed. One's entire destiny is not fixed by the experience up to the age of seven."

As to the influence of the first seven years on the physical wellbeing of the individual in later life, the doctors and dietary authorities are agreed.

"The first seven years are the most critical—the baby may be made ill by a single unsuitable meal. We cannot make up later for dietary deficiencies which have produced poor teeth, or a contracted chest, or have caused permanent injuries to the digestive tract," says Dr. Mary S. Rose, professor of Nutrition at Teachers College, Columbia University.

As to the importance of some type of religious training during the first seven years, Dr. Harry Emerson Fosdick, nationally-known New York minister, writer and educator, says:

"Before the age of seven, many of the child's fundamental attitudes are pretty thoroughly set—especially such attitudes as are concerned with trustfulness toward people or dread of them, the presence of fear as a motive, the habit of getting what it wants by selfish scheming or by confident request.

"These matters associate themselves with anything that is worth calling religion, and in that sense a child's fundamental religious attitudes are pretty deeply channeled by the time he is seven. The early years are very significant."

Although differences of opinion were expressed by the authorities, there is virtual agreement on the following seven points:

1.—That we are, as William James pointed out, "but a mass of habits."

2.—That most of our important habits of everyday living are laid down in our very early years.

3.—That it is easier to lay down good habits than to change bad ones and

4.—That, therefore, the right environment and intelligent guidance of children under seven years is most essential.

5.—That "all is not lost" after seven, by any means. Even adults are subject to reform, but the older the person the more difficult the process.

6.—That, on the other hand, the child who has been safely brought through the first seven years is not guaranteed against future mishaps in character, behavior or physique. No parent can ever feel certain that all the good habits laid down will be a permanent acquisition, although they will be strongly rooted.

7.—That "every day is a day of growth," at any age of childhood, and that there is no beginning, no standstill, no end in character development.

DR. BESS V. CUNNINGHAM,
Teachers College, Columbia Univ.
(*Abst. from Children,
the Magazine for Parents*)

Bloodless Delivery

IN THE March, 1929, number of CLINICAL MEDICINE AND SURGERY, page 196, Dr. I. P. Israel, of Mexico, reported a case of bloodless delivery and asked if anyone else had had a similar experience.

About five years ago I attended such a case. The patient was a multipara, about thirty years old, of normal stature, and otherwise had a normal labor. There was not a particle of hemorrhage, except from the cord, and she said that she had no blood and practically no discharge with her other four babies, consequently I was not alarmed over the condition. This baby was a cretin, but the rest of her children were normal.

This is my first and only similar experience and I had never heard of a case like it until I read Dr. Israel's article.

W. P. DURHAM, M.D.
Sasser, Ga.

[We have been greatly surprised to receive four reports of labor without hemorrhage, since the publication of Dr. Israel's clinical note. Apparently this condition cannot be so rare as we had imagined. We shall be glad to hear from any others who have made similar observations.—ED.]

Oxyuris Vermicularis as a Cause of Appendicitis

IT IS not generally remembered by clinicians, when dealing with intestinal disorders, that the gastrointestinal tract is an involution of the cutaneous covering of the body. Thus the mucosa, being a continuation of the skin, possesses certain characteristics against bacterial invasion, as does the skin.

It is necessary that we do not lose sight of the fact that traumatisms precede bacterial invasion. For example, the invasion of tubercle bacilli in the mucosa of the lung is a result of a traumatic condition, resulting from breathing coal dust, marble dust, etc. It is just as necessary to have a

traumatized mucosa to obtain bacterial infection as it is necessary to have a traumatized condition of the skin to obtain bacterial invasion there.

This comparison of skin and mucosa is important. I believe that the mucosa of the appendix possesses the same natural protection against bacterial invasion as does the skin. The mosquito overcomes this natural protection of the skin: The oxyurid is a suctorial invader the same as the mosquito, except that it works in the sewer of the body, while the mosquito works externally.

The initial lesion in appendicitis occurs most commonly in childhood. It is in this attack that oxyurides are always present, and the operating surgeon will find at least one or more of these nematode parasites in every primary attack, whether in a child or an adult, if he will carefully examine the appendix, provided suppuration is not too far advanced. I have searched as long as thirty minutes and found a dead, male worm, with his stomach and intestinal tract full of human blood corpuscles, buried under the mucosa of the appendix.

In an article published in the *New York Medical and Philadelphia Medical Journal*, of June 3, 1905, the reason given by me why surgeons do not find oxyurides more frequently, was that they do not operate in the primary attack, or at least not until suppuration had taken place, when the worms are destroyed.

Since that time I have been carefully examining the appendix, before and after removal. It is important to emphasize the examination before removal, as at that time it may be determined whether oxyurides are still present in the organ. Of late years they are not looked for in the secondary attack, as these attacks are caused by a stricture of the lumen of the appendix, this stricture being a sequel of a primary attack.

The editor of one of our leading medical journals facetiously referred to me for suggesting that appendicitis was conveyed by kissing. While I do not wish to interfere with the editor's diversions, research men tell me that kissing or other direct contact is the only means of becoming infested with oxyurides.

During a recent trip made to Georgetown, British Guiana, a hospital of 300 beds was visited. The attending surgeon informed me that an appendectomy had

not been performed for five years. Confirmatory observations have been made by Dr. McCarrison, a British army surgeon, in tropical India. He states that, over a period of nine years, in which he performed 3,600 major operations, he did not see one case of ulcer, appendicitis, or mucous colitis. As is generally known, there has been an intensive campaign in the tropics, for generations, against intestinal worms. Owing to this warfare, oxyurides have been eliminated, and with their elimination has come the obliteration of appendicitis.

FRANK C. HENRY, M.D.
Perth Amboy, N. Y.

The Tuning Fork in Diagnosing Fractures

WHEN there is a suspicion that the clavicle, a rib, or other long bone lying near the surface, is fractured, but a positive diagnosis cannot be made by ordinary means, I have found the following method useful:

Apply a stethoscope to one end of the bone and the handle of a vibrating tuning fork to the other end. If the sound comes through clear and strong, the bone is not broken; if it is indistinct or blurred, the bone is cracked, but the fragments are in apposition; if no sound comes through, the bone is fractured and the fragments are separated.

In case of doubt it is well to check by making the test on the uninjured clavicle or a sound rib.

C. H. BURTON, M.D.
Mt. Clemens, Mich.

The Relation of Stomatology to Medical Diagnosis

"The dentist will never be the final judge in mouth conditions. He is only the final judge in mouth repair. Neither is the physician the final judge in mouth conditions; but the decision in any particular case should be by consultation of the physician, the dentist, and the expert roentgenologist, and perhaps the bacteriologist. In other words, any decision should be made by careful thought and not offhand, as the decision may be very serious for the patient."

PROF. OLIVER T. OSBORNE.

THIS thought is but one of the few fine, underlying principles of stomatology. With the increasing tendency toward a better understanding of human ailments, the desire for better education and a higher order of things, this science (Stomatology) has become more and more important.

Stomatology rightfully contends that Dentistry is a true, indivisible part of Medicine. The dentists of to-day need more medical knowledge and the physicians more dental knowledge. Complete cooperation between these two sciences has been a long time reaching a definite status. The idea that each could be independent of the other has been proven a great fallacy. Discord has now been removed. Perfect harmony and closer relationship have been achieved.

It is a well established fact that oral health, the preservation of the teeth, and preventive dentistry are Medicine's great aids.

According to Wismer, sixty percent of hospital-treated patients suffer from diseases traceable to focal infections. Diagnosis reveals that they suffer from end-results of chronic poisonings, which are, directly or indirectly, due to foci of infection.

The primary foci occur in the respiratory tract, along which we have the tonsils, adenoids and nasal sinuses. Other well known primary foci are in the skin, prostate and seminal vesicles, periapical abscesses and pulpless teeth.

The stomatologic pathology which the last two mentioned foci represent have, by recorded observations, been the cause of myocarditis, neuritis, arthritis, defective hearing, appendicitis, ulcers, colitis, gastric and intestinal disorders, secondary and pernicious anemia, sinus infections and eye and glandular conditions.

It is obvious that, since oral foci of infection must be eradicated by a stomatologist (dental specialist) and the systemic conditions by a physician, their whole-hearted cooperation and a better knowledge of the relationship of each other's sciences would tend toward a more scientific diagnosis and a more rapid and definite cure of the disease under treatment.

The only successful prevention of secondary diseases can be accomplished by proper diagnosis and recognition of the foci of infection. With this knowledge the cause of the disease is discovered and either prevented or effectively cured.

One should remember that the remotest effects are due to various bacteria and their toxins, which are carried by way of the blood and lymph streams. The commonest organisms concerned in focal infections are the streptococci. Dental diseases are greatly responsible for these centers of infection.

We thus ascertain that oral foci of infection and general focal infection are inseparable.

A vast majority of physicians, in their daily physical examinations of patients and in their treatment of systemic disorders, have the opportunity for examining or suggesting a dental examination and roentgenograms of all the teeth. This procedure is as essential as the taking of the blood count, the pulse, the temperature, the blood pressure and the recording of the heart beat.

The presence of mouth lesions, resorption of gum tissues and pyorrheic conditions, which permit entrance of infectious substances into the general system, can and should be noted by the medical man; dental treatment should be advised and a consultation with the stomatologist on the case should be arranged.

This is a duty we owe, not only to our patients, but to ourselves. We have studied the science and the art of healing, with the view of serving humanity. They can be best served by ready minds who are willing to grasp the accepted facts of clinical experiments and to educate the public along these principles.

The fate and future of preventive medicine lies in the counsel of the physician and the stomatologist.

JOSEPH OLIVER ERICSSON, D.D.S.
Norristown, Pa.

Magnesium Sulphate Intravenously

FOR years I have been using magnesium sulphate, in one form or another, in many diseases, externally and internally, and within the last few years I have been using it hypodermically and intravenously.

I have found that a saturated solution of epsom salts and a saturated solution of granulated sugar, equal parts, the dose being 0.3 to 1 cc., depending on the case, in about 4 cc. of distilled, sterilized water, is practically a specific in a number of diseases. One-half (0.5) cc. of this mixture, given intravenously and repeated about every six hours, is an almost if not quite specific for septicemia. I have seen the temperature go down from 106°F. to practically normal in from six to twelve hours, the pain being almost entirely relieved; and I have never had to give over five injections in the severest cases. Since using this solution all cases have been well in from two or three days to two weeks.

In all cases I use a hot solution of epsom salts (one pound of salts to two quarts of hot water), externally to the infected part. The lymphangitis in septicemia has, in every case, cleared up in a day or two.

I have used this treatment in gonorrhea and gonorrhreal arthritis, injecting from 0.5 to 1 cc., intravenously, each day, and have been able to control both these conditions better than with any other remedy I have used. I give medicine internally as well, but never use a local injection.

There is nearly always a reaction after an injection of this solution, where pus or septicemia is present, and the severity of the reaction is in direct proportion to the extent of these conditions. The reaction usually starts in about an hour or two after the injection and is followed by fever; when the fever falls a severe sweating follows. If no fever and sweating occur, there usually are severe aches all over the body the following day. No harm has ever followed any of these reactions.

In cases of peritonitis, postoperative or otherwise, I have seen the temperature reduced from 105° or 106°F. to normal and most of the distension disappear, in from twelve to twenty-four hours, with about two or three injections. In sepsis following retention of the placenta, one or two injections will reduce the temperature to normal; then, after the placenta is removed, the patient recovers in from twelve to twenty-four hours.

In one case of a perinephritic abscess, in which a surgeon who was called in consultation said the patient should be operated upon at once, I started the injection, the patient's temperature running from 101° to 104°F. each day. In less than a week, with an injection each day, the temperature was normal; pain subsided and the patient recovered.

I have used this injection in a number of other infectious conditions with more or less success, including syphilis, influenza, pneumonia, tonsillitis, quinsy and erysipelas.

J. BYRON SLOANE, M.D.

Los Angeles, Calif.

[This would seem to be a shock reaction, similar to that produced by non-specific protein injections. It would be interesting to know what the leukocyte counts are, before and after these injections. Perhaps stimulation of the white

blood cells is the secret of the success of this treatment. If so, the intravenous use of typhoid vaccine or intramuscular injections of Lactigen (boiled, fat-free milk) or nuclein would accomplish similar results.
—ED.]

Cellophane Transmits Ultraviolet Rays

MY OBSERVATIONS lead me to believe that cellophane (so-called glassine paper) should have a high transmission index for ultraviolet rays, as it appears to have the same properties as ordinary transparent celluloid and comes in very thin sheets.

Spectographs made through celluloid show it to have a transmission index closely approaching that of quartz. I had this brought to my attention rather forcibly when I thoughtlessly used a green celluloid eye shade, while applying ultraviolet rays to a patient's scalp.

G. J. WARNSHUIS, M.D.
Milwaukee, Wis.

The Part of the Parent in Child Delinquency

HERE are a few suggestions for parents about their relation to the delinquencies of early childhood.

The oversolicitous parent stuffs and overfeeds the emotional life of the child; whereas the stern, cold, forbidding parent deprives the child of mental nourishment, leaving him hungry and resentful. There is plenty of room between these two extremes to give a fair degree of assurance of strength and stability to the emotional life of the child so that he will neither suffer from hunger pains nor be nauseated by overstimulation.

There is a lamentable ignorance and an inexcusable lack of interest on the part of many parents as to the resources available and utilized by the child to gratify his pleasure-seeking tendencies.

So long as children are trained and dominated by personalities inadequate because of intellectual defects or an unhealthy outlook on life, so long are we going to have children whose characters are twisted and warped through suggestion and imitation of these parents.

There is no reason why we should expect a normal child to adapt himself to an

abnormal environment. The impulse to rebel in such situations is an indication of stability.

All too frequently it is the conduct which annoys and inconveniences parents that causes the most concern, and not the type of conduct representing fundamental handicaps to the child in later life.

Hyperactivity, mischievousness, and curiosity are more apt to bring the child into conflict with parental authority than submissiveness, self-centeredness and day dreaming, all of which later indicate that the child is getting out of touch with the realities of life.

Very often inadequacy, inferiority and delinquency are suggested to the child by family and neighborhood gossip regarding his difficulty in getting along at home or in school.

The parent who depends upon threats and punishment to bring about the desired conduct on the part of the child is often making a great deal of work later for the judge and the police court.

When cheating the child is held in the same contempt as cheating the adult, children will have a higher regard for truth and honesty.

No greater affliction can be thrust upon the child than that of inheriting the type of parents who refuse to allow him to grow up.

D. A. THOM, M.D.

Boston, Mass.

Ringworm of the Toes (Athlete's Foot)

RECENT publications have stressed the difficulties of treatment of ringworm of the toes. The following rationalization of therapy may be of aid.

Treatment cannot be standardized. Each case must be studied and treated on the basis of clinical findings. Often enough, one finds that a marked dermatitis is present, from scratching and infection, and this must first be cleared up. It is wrong to apply the remedies for the extermination of the fungus if such efforts will result in marked changes in the skin.

The indications for chemical therapy depend on whether the disease is scaly, vesicular or hyperkeratotic. It is usually agreed that the causative organisms lie under the surface, possibly directly in the keratin layer. Medication is usually di-

rected to soften the keratin in all cases, and to remove the thickened keratin in the hyperkeratotic cases. Wet dressings, immersion in water, application of solutions of potassium permanganate, salt, aluminum acetate, or combinations of these and other disinfectants, have all been recommended, but none has reached unanimity of acceptance.

In this country, by some curious twists, an ointment of salicylic acid, 6; benzoic acid, 12; lanolin and petrolatum, of each to 100, has found much acclaim, under the name of Whitfield's ointment, in the treatment of tinea of the toes. In this connection I will quote from Whitfield's book:

"When the infection has reached the toes, the problem of treatment is difficult. The thick horny layer between the toes and the sole of the foot renders it almost impossible to get the parasiticide in contact with the fungus. Great care should be taken to trim away all flaps of fringed skin and to remove the roofs of vesicles or pustules. Recent cases are more easily cured than the old established ones and generally yield to ten days' treatment with chrysarobin ointment.

In the treatment of old cases, the skin is trimmed and painted with this solution: Chrysarobin, 20; sulphuric ether and acetone, of each to 100. This is allowed to dry, and then a pair of cotton socks is put on. In the evening, the solution is washed off, and the feet dressed with: Benzoic acid, 5; salicylic acid, 3; soft paraffin, 8; cocoanut oil, 30. This does not stain the bedclothes, but softens the epidermis.

Next morning this is washed off, the skin trimmed again and the paint reapplied, after which a second pair of socks is put on, while the first pair is being boiled."

I have followed this regimen of therapy with slight modification. The keratolytic action of salicylic acid is retained by using an ointment of six percent. I am not convinced that benzoic acid helps. I prefer to add salol, up to three percent, to the salicylic acid ointment. The antiparasitic remedy may well be chrysarobin. I have used chloroform as a vehicle. The chloroform evaporates and leaves a film of chrysarobin behind. It is very essential to warn the patients to keep their hands away from their eyes, and I much prefer to use the chrysarobin myself, rather than prescribe it for the patient to use.

I have also used as the antiparasitic remedy the mixture offered by Dr. Aldo Castellani: Saturated alcoholic solution of basic fuchsin, 10 cc.; 5 percent, aqueous carbolic acid solution, 100 cc. Filter and add boric acid, 1 Gm.; after two hours add 5 cc. of acetone; and two hours later, 10 Gm. of resorcinol may be added.

It has been my habit also to reverse the order of events as outlined by Whitfield. I have the patients use the keratolytic, salicylic acid ointment, in the morning because the day's activity may help massage. The staining and ruination of the night socks and the bed clothes may be made less objectionable by advising purchase in quantity from the cheapest stock of white socks.

Under physical measures, I have already mentioned the requirement of trimming the edges of the broken vesicles and the removal of the roofs of unbroken ones. Very small vesicles may be punctured.

Radiation with the various emanators of therapeutic ultraviolet has been routine, with exposure regulated to avoid any visible erythema. Such radiation alone, however, is not effective in ringworm of the toes and adjacent areas, but in the groin type I have used the radiation without other forms of therapy. The x-rays do not possess any antiparasitic qualities.

I have had patients with a widespread eruption of the trunk and extremities, associated with ringworm of the toes and plantar surfaces. I have considered these as variants of the trichophytid eruption, as seen in children with kérion of the scalp. In many instances, the patients have been miserable with severe general pruritus. I have prescribed general body baths, in such instances, several times a day, with immersion for one-half to one hour each time, if the patient's constitution warranted it. I have not used antiparasitic remedies on these trunk and limb lesions.

Patients with tinea of the nails, who have refused to have them evulsed, have been treated with heat (baking). Keratolytics, as barium sulphide, have also been applied. The treatment is strenuous but the chronicity of the affliction requires it. It may well be that the nails are the focus of reinfection, as suggested by Charles Mallory Williams*.

It is true that, despite every form of treatment, some patients with tinea of the toes persist in having the affliction. Prophylactic measures, as care of the hygiene of bath mats, swimming pools, bed room slippers and whatnot, have to be considered. But, with a clear idea as to the rationale of therapeutics, one should have less difficulty, and I believe that a widespread knowledge of the real purpose of

Whitfield's ointment will itself be justification of the publication of this note.

HERMAN GOODMAN, M.D.
New York City.

The Venereal Clinic on the Stage

THOUGHTFUL persons must seriously deplore the recent effort, now, fortunately, receding, but not yet exhausted, to give the public venereal instruction under the form of dramatic art. By depicting all its horrors upon the stage it is proposed to cure the social evil. There is an old medical theory that a remedy for each disease is to be found in the vicinity where the disease originates. This latest "cure" came to us from Paris.

And happy shall we be when it shall have resumed its former habitat, for already have we added to the problems of actual disease the even more difficult psychic conditions that result from feeding such pabulum to minds unfitted for its reception.

No woman, however emancipated, can witness the spectacles and hear the inuendoes now common upon the stage without a psychic wound that she will carry through life and one that will mar some of her most sacred relationships. Nor can any man, unless he be fortified by a previous education as to the real nature of these questions. Such education every man should have, as should every woman, in a sane educational way, but young people are not best taught hygiene by showing them first the horrors of a pest house.

Nor should we be deceived by the fact that some honest and high-minded people have approved these procedures. Honest people are not necessarily wise. Only less dangerous than the deliberate crook is the well-meaning fanatic. The dramatized venereal clinic is the joint product of both, but it is perpetuated only by the profits of sexual sensationalism.

It becomes the duty of people with trained and balanced minds to denounce the crook and, taking the fanatic gently by the hand, to show him wherein his efforts are destructive. That sane people will, in time, do this is beyond question, and when they do we can lift our eyes above the surging sex wave and with patience say: "This too shall pass away."

BURTON HASELTINE, M.D.
Chicago, Ill.

*Williams: Archives of Dermatology and Syphilology, 18:720, (November) 1928.

THE LEISURE HOUR

Camp Beds

By GEORGE B. LAKE

In considering the subject of what sort of bed is best for camping there are four questions which must first be answered: what time of year are you going to camp? how long? how? and where? If you plan to be out in cold weather you will need quite a different bed from that which would be satisfactory in hot months. The bed used for a two or three days' tramping trip will hardly suffice if you are to be out all summer. If you plan to carry the bed on a pack-animal or in a vehicle you need not be so careful to keep the weight down as you would if you expect to pack it on your back. If your camp is to be in a timbered country your arrangements will be different from what they would if the camp-site were treeless.

The beds to be described will be adapted to any circumstances or conditions of camp life, so that, if the surroundings are more propitious than those planned for, various articles may be omitted. For instance, if your camp is in a neighborhood where pine or other evergreen trees are abundant, you can dispense with a mattress and extemporize one out of pine boughs; if you are on a site which is always high and dry and free from rocks and other irregularities, you can comfortably make your bed on the ground, and thus eliminate the weight and cost of the stretcher-cot; if in a country where it rains only at certain seasons, you need not carry the canvas-cover in the dry season. Minor changes of this sort can well be left to the judgment of the individual camper.

The prices and weights of the articles listed are based upon those which I have used and found satisfactory. If you already have blankets, comforters, pillows, etc., which will serve for these purposes there is no need to buy these things.

The beds to be described will be classified as follows:

- 1.—Beds to be packed on the back.
 - A.—For short trips in warm weather.
 - B.—For extended camps in warm weather.
 - C.—For short trips in cold weather.
- 2.—Beds to be transported by vehicle or pack-animal.
 - A.—For extended camps in warm weather.
 - B.—For extended camps in cold weather.

First will be considered the various methods of packing and transportation.

For packing on the back the choice may be made by the packer between the *pack-harness*, where the weight is supported on the back and shoulders, and the *tump-line*, where it is held by a strap passing across the forehead. The amateur packer will usually find the pack-harness more comfortable. It is possible to extemporize a harness or tump-line, but it will be found more satisfactory to purchase one from some house dealing in campers' supplies. A harness will cost from three to five dollars, and a tump-line from two to three. Either will last an average man a lifetime.

If the bed is to be carried in a vehicle it may be rolled up in any way that is handiest and most compact. If a pack-animal is to carry it, it should be rolled lengthwise and the ends tied securely. If a pack-saddle is used the roll may be laid across the rest of the pack and lashed snugly in place; if not, a blanket should be fastened on the animal's back with a surcingle and the bed-roll laid over this, the ends being firmly fastened together under the belly. A rope, or, better, a strap, should pass across the breast just above the shoulders, being fastened to the roll at each side.

BED 1-A

	Weight	Cost
4 yds. of canvas, balloon-silk or other light, waterproof material, 36 in. or more wide (to go under and over the bed)	2 to 4 lbs.	\$2.00 to \$ 5.00
A comforter, to be folded lengthwise for a mattress 3 to 5 lbs.	4.00 to 10.00	
1 pair wool blankets (gray, tan or olive color)	4 to 8 lbs.	6.00 to 12.00
Total weight and cost	9 to 17 lbs.	\$12.00 to \$27.00

Note:—As a rule, the lighter the weight of these articles, the higher the price. A good camp bed of this type, which will last the camper for many years, can be bought for about fifteen or twenty dollars, and will, weigh about twelve or fifteen pounds. (Weight and cost include a pack-harness or tump-line).

A pillow for this bed is made by raising the head end of the canvas with grass, leaves or twigs.

BED 1-B

	Weight	Cost
Same as above.....	9 to 17 lbs.	\$12.00 to \$27.00
with the addition of a stretcher-bed	8 lbs.	3.00 to 5.00
Total weight and cost	12 to 20 lbs.	\$15.00 to \$32.00

Note:—A stretcher-bed can be purchased ready made from the dealers in campers' supplies, or may be made at home from a piece of strong canvas 5x8 ft. in size. A piece one foot square is cut from each corner, and the flaps so formed are turned down and sewed firmly, making an open hem or sleeve 6 inches wide at each side and the two ends. Poles may be inserted at the sides only or at the sides and ends (lapping the frame at the corners) and the bed thus formed supported on four crotched sticks set in the ground. Poles may be placed in the ends only and the bed suspended between two trees like a hammock. Much extra comfort can be secured at slightly increased cost by replacing the comforter-mattress with a camp mattress of "Kapoc" or ilanasilk, which is very light (weight 5 lbs.), waterproof, and costs about \$8.00.

BED 1-C

No camping trip should be undertaken in severe weather unless the camper is prepared to make the financial outlay necessary to procure an adequate sleeping-bag, for an open or carelessly arranged bed in cold weather is a very dangerous thing. Sleeping-bags may be procured from dealers in campers' supplies, and will weight from 7 to 20 pounds, and cost from \$20.00 to

\$50.00. It will be well, also, to have a knitted wool cap to wear at night, in order to prevent chilling the head. This will cost about \$1.00.

BED 2-A

The same as 1-B, except that here the weight need not be considered, and a small mattress of any sort may be taken, also a pillow, sheets and pillow-cases, so that the camper can undress and go to bed like a Christian. It may also be well to include, in place of the stretcher-bed, a folding cot, which will weigh about 17 lbs. and cost about \$5.00. In such a camp as this the camper will usually have a tent of some sort, and, with a cot or stretcher-bed under him, (in any permanent camp some arrangements should be made for raising the bed from the ground), can dispense with the waterproof canvas which is so necessary in beds 1-A and 1-B.

BED 2-B

In this case the camper will almost always have a hut, tent or tight shelter of some sort, with a more or less adequate arrangement for heating it. If such is the case the sleeping-bag will not be necessary, and the bed may be arranged as follows:

	Weight	Cost
1 mattress	5 to 10 lbs.	\$4.00 to \$10.00
1 (or two) pair wool blankets (pair)	4 to 8 lbs.	6.00 to 12.00
1 (or two) comforters of lambs-wool or down (light and warm) (each)	3 to 5 lbs.	2.00 to 20.00
1 pillow	1 to 2 lbs.	1.50 to 4.00
Total weight and cost	13 to 30 lbs.	\$19.50 to \$46.00

Any of the beds described above can be depended upon to insure to the camper a safe and comfortable night's sleep under the circumstances for which it is recommended.

In Lavender

New Yorkers and people from various parts of the country and people of other countries made a ceremonial of the last dinner in the Waldorf-Astoria. The old order is changing rapidly in the United States, and many of its landmarks disappear overnight, with no one to see where the ghosts go when they lose their homes and take to the streets. American traditions begin tomorrow. The new order is a fabulous creature which walks in the future and leaves no tracks. Nineteen-twenty-nine can't sit down, because every-

thing is fresh paint. Its fireplace is a forge and its roof the stars.

The old order leaves something for the new to acquire. It was more tolerant and kindly and riper in grace. Its rascals were less hypocritical and its virtuous were less painful. It was, in spots, robust, but its morals worked out quite as well as morals do today, and with less exertion. Most of its taboos were founded on good sense, and much of its freedom was only a confidence in adult self-government. It was a more civilized order than exists today, if civilization is a state in which maturity is supposed to be competent, because of advantages absorbed, inherited, or inculcated; orderly because that is the natural way to be, and, in the main, respectable because that is the normal desire.

—*The Chicago Tribune*, May 6, 1929.

Is This True Now?

When the distinguished visitor, Dr. Oliver Wendell Holmes, was leaving a certain hotel he was asked to write something as a souvenir in the hotel register.

"With pleasure," said the doctor, as he wrote:

"I was told to come to this hotel for change and rest. The waiter got the change and the landlord got the rest."

Our notion of an embarrassing question would be to ask an alienist how it was that the lunatic who escaped from an Eastern asylum and posed as an alienist for months before being exposed got away with it as long as he did.—*Macon Telegraph*.

In Finland they call bootleg liquor korpi-kunsten kyyneleita, even before drinking it.
—*New York Evening Post*.



Courtesy of *Freedom*

THE GREAT AMERICAN HOME

How, Indeed?

"Now I lay me down to sleep,
A little maiden said.
If I should die before I wake,
How will I know I'm dead?"

My Paw

Paw sez, in the theater, the actors usen't
to be allowed
To really kiss the actresses, right out before
the crowd,
And they got tired of just pretendin' every
blame night,
So now days they kiss 'em—and kiss 'em
right.

He sez, there's no tellin' what this high
art's goin' to end in,
Mebbe some other things they're now just
pretendin'
They'll really be doin'—and if it wasn't
for his age,
He'd sure take up the stage!
—B. H.

Thumbnail Therapeutics

Pituitary Extract in the Nose in Labor

In 54 labor cases, pituitary extract, applied to the nasal mucosa, has been successful in all but one.

Twenty minimis (1.25 cc.) of the extract was placed on a pledge of cotton and inserted under the anterior end of the inferior turbinate. At the end of an hour or two, the pledge is withdrawn and a fresh one applied in the other nostril for a similar period of time.—DR. J. I. HOFBAUER, in *J.A.M.A.*, July 2, 1927.

Fasting and Youthfulness

The signs and symptoms of senescence or senility result from an unsatisfactory condition of the blood plasma, which is frequently caused by overeating. Those in whom the evidences of advancing years are appearing should eat moderately and should fast at intervals. On such a regime, life should be considerably prolonged and the mental faculties should be active until the end.—DR. LEONARD WILLIAMS, in *M. & Rec.*

Bromide Stomatitis

To prevent bromide stomatitis, which, so frequently occurs in persons who are taking bromides, the daily use of the following mouth wash is recommended:

Potassium permanganate	1 part
Sodium chloride.....	50 parts
Aqua ad.....	1000 parts

Sig.: One teaspoonful in one glass of water as a mouth wash.—DR. A. ULRICH, Zurich.

Treatment of Burns

The debridement of burns by surgical excision, though theoretically ideal, is usually mechanically impossible and practically always a dangerous procedure in extensive third-degree burns. By the spraying of a 2½ percent aqueous tannic acid

solution, every two hours, upon these necrotic tissues the protein is precipitated in an inert form. Thus the wound is "debrided" chemically. The sterile shell thus provided prevents subsequent infection.—DR. W. E. LEE, Philadelphia, in *Internat. J. Med. and Surg.*, May, 1927.

Irradiated Ergosterol and Parathyroid Tetany

A woman, 36 years old, had her thyroid partly removed 15 years previously and, since that time, constantly suffered from chronic parathyreoprival tetany, which all the usual methods of therapy failed to relieve.

Six weeks of vitamin D treatment, in the form of irradiated ergosterol, sufficed to render the patient objectively and subjectively symptom-free.—DR. A. STERN, Charlottenburg, in *Deut. med. Wchnschr.*, Aug. 3, 1928.

Sphenoid Disease

Acute sphenoid disease is rather frequent. It is not usually diagnosed because we do not examine with the naso-pharyngoscope in every case of nasal suppuration.

Patients with acute infection of the sphenoid sinus suffer terrific pains around the eyes, in the parietal region and in the occiput.

The application of 20-percent cocaine solution to the anterior wall of the sphenoid and occasionally to the posterior wall, with irrigation of the sphenoid cavity with 1:10,000 metaphen solution, usually gives relief.—DR. WM. MITHOEFER, Cincinnati, O., in *J. Indiana S.M.A.*, March, 1928.

Ultraviolet, Lumbago and Sciatica

The ordinary acute attack of lumbago can be almost invariably ended by one, or at the most two, brisk erythema doses with the ultraviolet ray lamp. I do not exaggerate when I say that I have treated over

one hundred cases of acute lumbago, in all ages up to 70 years, without a failure, and I have found that never more than three exposures are necessary.

In sciatica a brisk erythema, stopping just short of blistering, should be given to the joint of the affected side and also a third degree erythema produced along the course of the nerve. Cure usually results after eight to a dozen treatments.—DR. W. A. TROUP, in *Brit. J. Actinotherapy*, Sept., 1928.

Bromine Poisoning

In cases of severe bromine poisoning, where the oral administration of table salt is impossible, an enema of isotonic saline solution is very effective.—DR. J. NOTKIN, in *Psychiat. Quart.*, Oct., 1927.

Liver Soup

Scrape the liver with a knife until all the pulp is removed. Use the pulp and discard the stringy tissue. Add the liver pulp slowly to a strong, tasty bouillon and stir well as the heating proceeds gently. The finished soup should have the consistency of cream soup. — DR. W. A. EVANS, in *Chicago Tribune*, Sept., 1, 1927.

Undescended Testicles

Halstead was the first to show that the operative placement of undescended testicles in the scrotum will stimulate mental and physical growth as much as thyroid does a cretin.—*Urol. and Cutan. Rev.*

Glucose (Dextrose) in Vomiting of Pregnancy

There has been no necessity for therapeutic abortions in cases of hyperemesis gravidarum since using intravenous injections of dextrose (500 to 1,000 cc. of a 5-percent solution, given slowly), followed by the hypodermic use of insulin (1 unit to each 3 Gm. of dextrose, up to 10 or 15 units).—DR. DARRINGTON, of Yazoo City, Miss., reported in *Therap. Notes*, Feb., 1928.

Ultraviolet Rays in Pruritus Ani

A number of cases of pruritus ani have been relieved by ultraviolet irradiations, using the Kromayer lamp, at 3 inches distance, for 2 to 5 minutes, over the affected

parts, with general body irradiations with the air-cooled lamp, as a general tonic measure.—DR. HERBERT F. PITCHER, in *Am. J. Electrotherap. & Radiol.*, Feb., 1922.

Dextrose and Insulin in Vomiting of Pregnancy

Experience in 12 cases of hyperemesis gravidarum shows that glucose (dextrose) with insulin offers marked benefit in the nausea and vomiting of pregnancy. Twenty cc. of 50-percent glucose solution, containing 5 units of insulin, may be given intravenously, as an office procedure.

This treatment is indicated only for patients in whom there is a derangement of carbohydrate metabolism. — DR. C. H. LEWIS, in *California & West. Med.*, Jan., 1928.

Abuse of Physical Therapy

It is an abuse of physical therapy to use it except: (1) after a careful physical and laboratory examination; (2) as an adjunct to other standard and well recognized procedures; (3) in teamwork with other branches of medicine and surgery; (4) after a definite attempt is made to apply the proper physiologic effects to the predetermined pathologic condition; and (5) unless every care is taken not to use it in place of other proved methods that may be superior. — DR. F. B. GRANGER, Boston, in *J.A.M.A.*, Oct. 8, 1927.

Cod-Liver Oil in Reducing Diets

In order to minimize the dangers of reducing the vitamin intake of patients who are dieting for obesity, the Adult Weight Conference of the A.M.A. recommends that 2 teaspoonfuls of cod-liver oil daily be added to the diet of all persons undergoing weight reduction.

Lipiodol in Empyema

Four cases of acute and 1 case of chronic empyema healed rapidly after the injection of lipiodol. The chronic case is of particular interest, since it was especially obstinate and a large cavity extended upward under the sternum and could not be satisfactorily exposed.

The injection of lipiodol into the residual cavity after treatment of empyema by

aspiration, drainage and the instillation of Dakin's fluid seems to have a decided beneficial action. It is simple, free from danger and should be given a trial.—DRS. J. L. RANSOHOFF and J. D. HEIMAN, Cincinnati, O., in *Surg. Gynec. and Obst.*, May, 1928.

Myotonia from Calcium Deficiency

In a case of myotonia due to calcium deficiency, the patient was advised to take calcium lactate three times daily in dosage of 0.325 Gm. He did so and, two months later, reported that he was entirely relieved.—DR. C. E. KIELY, in *J.A.M.A.*, Aug. 11, 1928.

Preventive Treatment of Syphilis

Preventive treatment of syphilis is indicated only when the possibility of infection is clearly established and when only a short period has elapsed since exposure.

A single series of arsphenamine injections is recommended as sufficient. The dosage should progressively run from 0.3 to 0.9 Gm. the strong dose (0.9 Gm.) being repeated until the total dosage reaches 5 to 6 Gm. If a patient thus treated is followed for 2 years and shows no clinical evidence he may be considered to be free from infection.—DRS. BRIN and LEGRAIN, in *Monde méd.*, Paris, Aug. 15, 1928.

Nitritoid Crises

The nitritoid crises observed occasionally following the administration of the arsphenamines may be avoided by the following simple procedure. Immediately before making the arsphenamine injection let the patient practice for 10 minutes deep, slowly-repeated respiratory movements at the rate of 20 per minute. The patient should do this while in the dorsal decubitus and remain in this position while the injection is being made. The effect of the respirations is to change the acid-base equilibrium to the alkaline side.—DR. HECTOR ROSELLO, in *La Prensa med. Argent.*, Aug. 20, 1928.

Carbon Dioxide Following Ether

If respiration is disturbed during ether anesthesia, inhalations of carbon dioxide will restore it to normal in a few minutes.

When CO₂ is given at the end of ether anesthesia, the patient is generally fully awake within 5 minutes. This procedure will frequently prevent postoperative pneumonia, because the lungs are expanded by the deep respirations following the administration of the CO₂.

An emergency tank of carbon dioxide is of more value in an operating room than is a tank of oxygen.—DR. ETHEL RAGHETTI, in *Am. J. Surg.*, Sept., 1925.

Luminal-Sodium in Tetanus

In the absence of antitetanic serum, good results have been obtained in the treatment of tetanus from the daily hypodermic injection of 1 to 3 cc. of a solution made by dissolving 2 Gm. of luminal-sodium in 10 cc. of sterile water. This solution should be used while fresh (less than a week old).—DR. GIANCHAND BLAGGANA, in *Indian Med. Gaz.*, Dec., 1927.

Increased Milk from Irradiated Mothers

By irradiating 20 nursing mothers, an increased milk secretion was obtained.

An artificial sunlight source was placed at distances of 80, 70 and 60 cm., successively, from the breast, if tolerated. At first the irradiation was once daily for 5 to 7 minutes; then increased daily by 2 to 5 minutes until the total daily exposure was for 45 minutes. The effect should be obtained in from 1 to 2 weeks time.—DRS. K. STOLTE and C. WIENER, in *Deut. med. Wchnschr.*, Feb. 17, 1928.

Neoarsphenamine in Lupus

Lupus patients who cannot tolerate gold-sodium thiosulphate, often do well on neoarsphenamine.—Note from Section on Dermatology, Southern Med. Assn., 1928.

Diabetes

In diabetes the weight of the patient should be reduced to the point where the injured pancreas will not be overworked. The total caloric intake is more important than the restriction of special types of food.

The overweight patient with diabetes can be treated successfully by diet alone (reduce his weight to normal), in uncom-

plicated cases; the patient of normal weight can usually be handled in the same way (reduce the weight to a point within the ability of the damaged pancreas); the underweight patient must be fed, and given enough insulin to burn his carbohydrates.

Once a diabetic, always a diabetic. Insulin is not a cure—though it is a valuable help. An individually adjusted diet is the only rational method for managing diabetes.—DR. S. A. VOGEL, Morristown, N. J., in *Bul. Chicago M. S.*

Fibroid Uteri

In not more than 6 percent of the cases of uterine fibroids is radium or x-ray treatment indicated.

Radiotherapy is chiefly of value when operation is declined or is contraindicated, or in the cases of young women in whom the possibility of complete sterilization is undesirable.

Conservative myomectomy or hysteromyomectomy is the surgical indication in the great majority of cases. The latter is the operation of choice when the patient is over 45 years old.—DR. W. A. NEWMAN DORLAND, in *Illinois M. J.*, March, 1927.

Some Incompatibles

Alkaloids and their salts are generally precipitated by alkalies, tannic acid, iodine and the iodides.

Chlorides are decomposed by salts of lead and silver; and *vice versa*.

Chloral hydrate should not be mixed with alkalies.

Iodides and *bromides* are decomposed by nitric and nitrohydrochloric acids and the salts of silver, lead and mercury.

Antipyrine cannot be combined with calomel or sweet spirit of niter.

Ringworm

After epilation, apply Whitfield's ointment over the whole scalp. This consists of:

Salicylic acid	2
Benzoic acid	4
Benzoinated lard	30

M. et Sig: Rub in vigorously for at least five minutes, twice a day.

Secondary infection can be controlled by the temporary application of antiseptic wet dressings and exposure to ultraviolet rays.

Treatment should be continued for at least two weeks after the disease seems to be entirely cured.

X-ray epilation should be avoided.—DR. SAMUEL AYERS, JR., in *California & West. Med.*, August, 1927.

Pituitary Extract in the Nose

In treating diabetes insipidus, the use of (Pituitrin) pituitary extract, applied as a nasal spray or as pledges of cotton, allowed to remain for some time high up in the nasopharynx, gives substantially the same results as those obtained by subcutaneous injection.—DR. HERMAN BLUMGART, *Therap. Notes*, June, 1928.

Eye Injuries

After removal of foreign bodies from the eye, it is flushed with boric solution and a few drops of metaphen solution are instilled. A prescription containing butyn, epinephrin and boric acid is usually given the patient for hourly use until the cornea is healed. Argyrol is not used because it stains the denuded area of the cornea.

Ophthalmia caused by flashes from electric welders and acetylene torches is very painful and the photophobia is intense. These cases, in spite of the intense symptoms, usually recover promptly by the use of cold compresses and a solution of butyn, epinephrin and boric acid. — DR. J. V. CLOTHIER, in *Northwest Med.*, July, 1927.

Urinary Retention

In retention of urine, following operation or childbirth, persisting for 12 hours, the bladder is catheterized and a disinfecting liquid is introduced to the amount of 150 to 200 cc. more than that of the urine removed. This is usually spontaneously expelled and normal micturition then takes place.—DR. I. KVATER, *Klin. Med.*, Jan., 1927.

Sodium Thiosulphate and Metallic Intoxications

Experimental work has demonstrated that the value of sodium thiosulphate as an antidote when large amounts of arsenic have been injected is questionable.

In lead intoxication sodium thiosulphate has but a slight effect on lead elimination.

This is due to its alkaline reaction rather than to any ability to form soluble or insoluble lead compounds—DRS. A. G. YOUNG and A. C. CURTIS, in *Jour. Lab. and Clin. Med.*, April, 1928.

Danger in Alkaline Medication

There is danger of alkaline intoxication resulting from excessive alkaline therapy in the Sippy and similar treatments of duodenal ulcer. The frequency and regularity of feedings are of much greater importance than the administration of alkalies. The amount of alkali given should be reduced to a minimum and many patients will do well on little or no alkali.—DR. A. A. WOHLRABE, in *Kentucky M. J.*, June, 1927.

Insulin and Diabetic Gangrene

Insulin is of inestimable value in the treatment of diabetic gangrene, in that it quickly controls the diabetes, thereby improving the patient's nutrition and increasing his resistance to infection.—DR. J. E. HARBINSON, in *Ann. Intern. Med.*, Oct., 1927.

Physical Therapy in Tinnitus Aurium

When routine measures appear to be inadequate to relieve tinnitus aurium, diathermy should be applied. It may not cure any cases, but it frequently helps.

General ultraviolet irradiations are sometimes a valuable adjuvant to local treatment in some cases of obscure etiology.—DRS. HOLLENDER and COTTLE, in *Archiv. Phys. Therap., X-ray, Radium*, April, 1928.

Neurosyphilis

Malaria treatment shows the best influence in the early and in the late latent period of syphilis, before clinically determined changes are present in the central nervous system.

Every patient showing pathologically changed cerebrospinal fluid, during the course of a syphilitic disease, should be subjected to the combined neoarsphenamine-malaria treatment as early as possible.—DR. J. KONRAD, in *Dermat. Wchnschr.*, Oct. 20, 1927.

Auto-Cerebrospinal Fluid Injections in Tetanus

A cure was obtained in 70 percent of 10 cases of tetanus by the subcutaneous injection of 5 to 10 cc. of the patient's cerebrospinal fluid, once or several times, into the abdomen. In control cases, treated by serum and other medicaments, 44 percent of the patients were cured. It is assumed that the cerebrospinal fluid of tetanus patients contains special protective antibodies.

—DR. G. SPANYI, in *Schweiz. med. Wchnschr.*, Oct. 29, 1927.

Ether, Locally, in Endocervicitis

In cases of endocervicitis, the injection into the uterus, twice weekly, of 20 cc. of sulphuric ether gives good results. This can be done in the office, but should not be carried out on pregnant women, as it may produce abortion.—DR. G. DE TARROWSKY, in *Surg. Gyn. & Obst.*, Nov., 1927.

Central Effect of Pituitary Extract

The injection of pituitary extract into the spinal canal, in the lumbar region, causes a much more marked rise in blood pressure than when the drug is given hypodermically. This is repeated at each such injection, showing that the effect is upon the vaso-motor centers. Epinephrin causes no rise in blood pressure when given by intralumbar injection.

The spinal injection of pituitary extract is indicated in cases of hypotension of central origin—intoxication, infectious diseases, visceral perforations, spinal anesthesia, etc.—DR. A. LEIMDÖRFER, in *Wein. klin. Wchnschr.*, Dec., 1925.

Current Medical Literature

Bismarsen in Syphilis

In *Calif. and Western Med.*, Jan., 1929, Dr. H. J. Templeton, of Oakland, has this to say regarding Bismarsen.

The results from its use in a large number of patients would seem to indicate that it ranks almost equal to the older arsphenamines.

There are fewer indurations seen after its use, probably because it is given in an aqueous rather than in an oily vehicle.

Patients with seronegative primary syphilis, treated with this drug, have almost uniformly remained symptomatically and serologically negative. Patients with late primary and secondary syphilis have become Wassermann-negative after about fourteen injections and have suffered very few serologic, cutaneous or mucous tissue relapses.

Perhaps one of the most striking facts in these early cases is the very low incidence of positive spinal fluid findings after treatment. In this respect Bismarsen excelled arsphenamine treatment.

Bismarsen has reduced to negativity some cases which had remained "Wassermann-fast" after the usual methods of treatment.

Bismarsen is safe and valuable in cardiovascular syphilis. Here it has given marked relief, although the serologic results have not been striking.

Very few untoward effects have been noted. The few nitritoid reactions after its use have been very mild. The skin tolerates it very nicely. It should be used with caution where there is a history of previous dermatitis from arsphenamine. The gums, gastrointestinal tract and kidneys bear its administration well.

The Physician's Dental Education

Dr. Willard J. Stone, Pasadena, Calif., in *Ann. Intern. Med.*, Nov., 1928, makes a plea for the inclusion of special instruction in dentistry and oral diseases in medical school curriculums.

There is a growing appreciation and recognition that dentistry is an important branch of health service and cannot be ignored in the training of general practitioners of medicine. The physician should know something of dentistry in a definite way, for, as family advisor in matters of health, he may be the first one to have opportunity to impart the facts, and the proper care of the mouth is as significant for the maintenance of health as are any of the accredited specialties of medical practice.

Of the 79 medical schools in the United States, only 9, in 1924-25, had required courses

in oral hygiene, oral surgery or clinical dentistry in the undergraduate instruction. In 7 of the leading medical schools in this country no systematic instruction is given students of medicine in modern concepts of dentistry.

Clinical Experience with Irradiated Ergosterol

Irradiated ergosterol is by far the most potent of the antirachitic agents. It is an absolute specific. Cod-liver oil, in the amount in which it can be given, is a specific of limited dependency—only moderately effective for the average infant, uncertain in action for the rapidly growing infant and ineffective for the premature. Irradiated ergosterol is quite as valuable in tetany as in rickets, and in both disorders is remarkable for the rapidity as well as for the reliability of its action.—ALFRED F. HESS, M.D., and J. M. LEWIS, M.D., in *J.A.M.A.*, Sept. 15, 1928.

Ephedrine in Spinal Anesthesia

In *J. Urol.*, Jan., 1929, Drs. N. F. Ockerblad and T. G. Dillon, of the University of Kansas School of Medicine, refer to their report, published in 1927, of 24 cases in which spinal anesthesia was reinforced by ephedrine. This series has now been increased to 250 cases.

It is well known that circulatory collapse (splanchnic stasis), varying in degree, takes place in a patient subjected to spinal anesthesia, and many expedients have been devised to overcome it. Owing to the circulatory collapse, a severe strain is put on the heart and, if there is not good compensation, the situation of the patient becomes dangerous.

Ephedrine has the same pharmacologic action in raising the blood pressure as has epinephrin; but the action of the latter drug is fleeting, while ephedrine produces a sustained and prolonged rise in blood pressure, both systolic and diastolic.

So far none of the authors' patients has been found to show toxic reactions to ephedrine, although 0.3 Gm. was used in a number of cases, over a period of 30 minutes. The anesthetist must, however, administer the drug sparingly and with judgment to prevent too rapid a rise in the blood pressure.

Hypotension is not a contraindication to spinal anesthesia when it is controlled by ephedrine. The vascular system should be reinforced with ephedrine long enough before the actual administration of the procaine to have the blood pressure 20 to 30 mm. above the normal; that is to

say, in a patient whose systolic pressure is 90 mm., ephedrine would be given until his pressure rises to 125 or 130 mm. The ephedrine should be given in doses of 0.05 Gm., subcutaneously or intramuscularly.

If the pressure is already high (120/70 or higher), no ephedrine should be given prior to anesthetization, but, as soon as a tendency to a fall in pressure is noted, 0.05 Gm. of ephedrine is given at 3 to 5-minute intervals until the pressure is rising. In the general average of all the authors' series, three ampules of 0.05 Gm. each were necessary. The blood pressure should be kept checked constantly.

The reactions observed were so slight as to be considered entirely negligible.

Ephedrine, properly used, eliminates most of the dangers of spinal anesthesia. It entirely and successfully combats the splanchnic paralysis, with the subsequent alarming fall in blood pressure. It has been used in many cases of the socalled high spinal anesthesia, with good results.

Bismuth in Neurorecurrences of Syphilis

In *Arch. Neurol. and Psychiat.*, Jan., 1929, Dr. J. E. Moore, Baltimore, based on his study of 81 cases, finds that neurorecurrences are observed in at least 0.2 percent of patients with early cases of syphilis. Males are more subject to this form of neurosyphilis than females, and whites more than negroes.

An arsphenamine dosage of 0.1 Gm. per 25 pounds of body weight, for the first three injections of the first course of treatment, and the substitution of intramuscular injections of bismuth for inunctions of mercury in the interim, have apparently reduced the incidence of neurorecurrences in the author's clinic.

The phenomenon of neurorecurrence is limited to inadequately treated patients with early syphilis; it does not appear late in the infection. Neurorecurrences are rare when bismuth is administered in the early treatment.

The Wassermann reaction of the blood is frequently completely negative at the time of appearance of a neurorecurrence. The spinal fluid usually gives a positive test.

The time interval between the last treatment in these cases and the development of a neurorecurrence averages 8 weeks.

Radon in Carcinoma of Mouth

Drs. L. F. Weber and W. A. Pusey, of Chicago, in *Illinois M.J.*, Mar., 1929, declare there is no more brilliant achievement in radiotherapy than that which is obtained from implants of radium emanation or radon in carcinoma of the mouth.

In the authors' practice, the radon is concentrated and sealed in small glass or gold capillary tubes, 3 to 4 mm. long and 0.5 mm. in diameter, known as "seeds." They have obtained the best results from glass seeds of 0.5 millicurie and gold of 1 millicurie strength. The seeds are implanted one to each cc. of malignant tissue, and 10 to 15 seeds is the largest number ordinarily used. The growth must be divided into imaginary cubic centimeters.

It is desirable to keep the seeds 5 mm. away from surrounding normal tissue and blood vessels, as a necrotic area develops around them, from the beta rays.

The insertion of the seeds is a simple process. A wire needle of a trocar is withdrawn a short distance from the point of the trocar; the trocar is loaded with a seed by means of a pair of forceps, and is then inserted into the tumor mass to the desired depth and withdrawn slightly to make a pocket, into which the seed is pushed.

The decay of radon is continuous. At the end of 30 days the seeds are inert and by this time they have become encysted or sloughed out. The total dose delivered from 1 millicurie is 132 millicurie hours.

Reactions from Intranasal Surgery

Drs. A. R. Hollender and M. H. Cottle, in *Illinois M.J.*, Feb., 1929, state that various types of reactions and complications frequently follow intranasal operations. The most important of these are: headache, obstructed breathing, infection, hematoma, deposits of organized exudates on the nasal membranes and general or systemic "postoperative depression."

The factors which influence immediate post-operative reactions are: (a) physical status of the patient, (b) rhinologic status, (c) hospitalization, (d) asepsis, (e) nature of operation, (f) use of packs and splints, (g) postoperative treatment.

A bacteriologic study of the surface and submucosa has failed to explain the occurrence of severe reactions incident to intranasal surgery, but an indirect relationship, wherein the bacteriologic state influences the resistance of the nasal membranous tissues, seems likely.

The nature of the operation, with special reference to avoidable traumatic abuse of intranasal structures, is an important consideration.

The unsolved problem of the use of packs and splints has again been approached, with the conclusion that lubricated gauze strips serve quite satisfactorily, if not packed too tightly and if not permitted to remain in the nasal chambers longer than twenty-four hours.

The avoidance of local intranasal therapy during the first week after operation is advised. The state of "postoperative depression" can be overcome by suitable general upbuilding measures, and with favorable systemic response, local reactions, if present, promptly subside. The application of convective heat to the face is probably one of the most valuable additions in therapy for the elimination of distressing local symptoms.

Insulin and General Nutrition

Dr. James J. Short, of New York, whose preliminary report on "Increasing Weight with Insulin" appears in *J. Lab. and Clin. Med.*, for January, 1929, believes that insulin occupies a place of the highest importance in the treatment of malnutrition and deficient weight, in both children and adults, regardless of whether or not they have diabetes. He quotes Vogt and Falta, to the effect that insulin affects the general metabolism and accelerates intestinal digestion and absorption, being especially valuable

in those patients who are constitutionally lean and have small appetites.

Dr. Short reports 7 cases, in adults between 21 and 74 years of age, in which malnutrition was a prominent feature, all of whom showed marked improvement in appetite, with a decided gain in weight.

The usual procedure was to inject from 3 to 10 units of insulin, $\frac{1}{2}$ hour before breakfast and the evening meal or before all three meals (dose and frequency being decided by the condition), and then to take advantage of the hunger produced by giving generous meals, rich in fats but poor in sugars, because the latter act as an antidote to the insulin.

The author believes that this will prove a valuable means for overcoming the psychic aversion to food which is not uncommon in psychasthenic patients; and that the weight may be maintained at or near normal by repeated short courses of insulin, at such intervals as conditions may dictate.

Development of Breast Fed and Artificially Fed Children

An investigation of the physical and mental development of breast fed, compared with artificially fed children, up to the thirteenth year, has been made by Carolyn Hoefer and Mattie C. Hardy, of Chicago, and results published in *J.A.M.A.*, Feb. 23, 1929.

The analysis of the histories of 383 such children has shown the following facts:

A.—Children who were artificially fed were, on the whole, inferior physically and mentally to those breast fed.

- 1.—Except for height, they ranked the lowest in all the physical traits measured. With this one exception they were the only group not showing any acceleration.
- 2.—From the standpoint of nutritional indexes, they were the poorest nourished group.
- 3.—On the average, they were the most susceptible to diseases of childhood.
- 4.—In learning to talk and to walk, they were the slowest of all the groups.
- 5.—In mental development the artificially fed ranked next to the lowest, the lowest being those breast fed from ten to twenty months.
- 6.—Of the children with superior intelligence (intelligence quotient 120 and above) the smallest percentage was found in the artificially fed group.
- 7.—Of the artificially fed children, not a child was classified as being exceptionally bright (intelligence quotient 130 and above).
- 8.—In considering the two types of artificial foods most commonly used by these children, modified cow's milk appeared to be a more satisfactory aid to later development than unsweetened evaporated milk.
- B.—Children who were breast fed from four to nine months were definitely superior physically and mentally to all the other groups.
- C.—Children who were fed exclusively on breast milk longer than nine months, although

apparently developing physically at a fairly normal rate, were mentally the poorest of all the groups. As the length of the nursing period increased beyond nine months, there was a progressive decrease in the intelligence ratings.

X-Ray Therapy of the Tonsils

Dr. Herman Fried, New York, in *M. J. and Record*, Jan. 2, 1929, states that, in his experience, radiation, in the beginning of an acute attack of either follicular or interstitial tonsillitis, will generally abort the disease and prevent suppurative formation. The course of the disease, in 20 cases radiated, did not continue longer than 24 to 36 hours after the treatment.

There is no danger and there are no ill effects during or following tonsil radiation.

There are certain indications for radiation of diseased tonsils:

- 1.—For infected tonsils which give symptoms of protracted fever.
- 2.—When diabetes is present.
- 3.—In chronic tonsillitis in children up to 15 years old.
- 4.—In acute follicular and acute interstitial tonsillitis.
- 5.—In chronic hyperplastic tonsils and hypertrophy of the tonsils.
- 6.—In cases where lymphoid masses and bands develop after tonsillectomy.
- 7.—In cervical gland infection and enlargement, failing to improve after operation.
- 8.—Also as a preoperative measure, as a preventive of spreading of infection.

Radiation is contraindicated in the case of bad fibrous tonsils, of tonsillar or peritonsillar abscess or in retropharyngeal abscess.

Vitamin A and Yellow Pigment

An editorial in *J.A.M.A.*, for Jan. 5, 1929, calls attention to the fact that the occurrence of vitamin A in vegetable foods seems to be associated with a yellow color. The fruits and plants found richest in this necessary substance are oranges, carrots, yellow corn and yellow sweet potatoes. White corn and white potatoes carry little or no vitamin A.

While this vitamin is probably not identical with the yellow pigment, the association of the two is of interest and may be of some practical value, particularly in the feeding of animals.

Cancer of the Stomach

Dr. Jos. C. Bloodgood, in *Surg. Gynec. and Obst.*, Aug., 1928, states that he has shown that (up to a couple of years ago) cancer of the stomach is admitted to the surgical clinics of the world with an inoperability of more than 50 percent and, when resection is possible, with a curability of less than 35 percent.

Every member of the medical profession should know that cancer of the stomach (especially in the pyloric half) belongs to the curable type of cancer and its complete removal is not a dangerous operative procedure. The x-ray, both in fluoroscope and film, is the only instrument of precision that will make the diagnosis possible and accurate in all organic lesions of the stom-

ach. But it is dangerous to conclude, through x-ray examination only, that any lesion of the stomach is cancer and inoperable. The positive signs of hopeless cancer of the stomach are: peritoneal exudate, skin nodules in the abdominal wall or enlarged nodules in the liver.

The stomach can be explored under local anesthesia by an incision in the mid-line below the ensiform and, in Dr. Bloodgood's opinion, this should be done in all cases, except when the malignant disease is clinically hopeless. Secondary anemia should not be a contraindication, because we may institute blood transfusion.

Hemorrhagic Disease of the Newborn

The proper treatment for hemorrhagic disease of the newly-born is to inject some of the parent's blood into the muscles or loose tissues of the infant. The amount to be injected will vary with the severity of the case, but it is usually sufficient to give 10 to 30 cc. three times during the first day, twice during the second day and once on the third day. All that is required is that the blood should be withdrawn directly from the vein of the donor, in a 20 cc. syringe, and immediately injected into the buttock or elsewhere in the child before any clotting can take place in the needle or syringe.—DR. J. C. SPENCE, in *The Practitioner*, Dec., 1928.

Ultraviolet in Dental Diseases

In *Arch. Phys. Therapy., X-Ray, Radium*, Jan., 1929, H. G. Frankel, D.D.S., St. Louis, states that ultraviolet therapy has many indications in dental diseases. It is indicated in all cases of dental caries, all infections of teeth and gums, all types of ulcers, cellulitis, periostitis, Vincent's angina, acute alveolar abscess, all inflammations of the periodontal membrane, neuralgia, pyorrhea, postoperative pain, postoperative infection, orthodontia, and faulty development of body tissue due to lack of calcium.

As about 85 percent of dental pathology is carious in nature, it seems only rational that ultraviolet is indicated in practically every case that presents itself to the dental surgeon.

The particular qualities of ultraviolet therapy that render it of value in dental pathology is that the ultraviolet ray is a germicide and that its stimulative effect, in the metabolism of calcium and phosphorus and consequent growth and regeneration of bone, makes it particularly efficacious in cases in which the bony structures in the mouth are affected.

Clothes

Customs and fashions impose on people clothing which is often unsuitable. It should be easily adaptable to change of weather.

In *Practitioner*, Dec., 1928, Professor Leonard Hill, the well known London physiologist, states that a woman in modern dress carries only half (or less) the weight that man does, and there is no evidence that she suffers in health from discarding the excess clothing worn by women in decades past—in fact, she has gained.

Women have suffered no more than men from "colds", pneumonia and rheumatism; their death

rate has not gone up. The clothing, however, has been made so scanty through low necks, open bosoms, half bare backs, bare arms, legs up to the knees covered only with thin silk stockings, that women demand the shutting of windows and putting on of fires, when men in warmer clothing feel no such need. This is wrong. The scanty clothing of women should not result in overheated, stuffy houses. The clothing should be the lightest that can be borne without the wearer being pinched with cold or feeling the need of artificial heat when the weather is mild. It should not be so heavy (as in the case of men) as to reduce the heat production of the body to a lower level and interfere with the taking of vigorous exercise. It is absurd to put on an overcoat when going out for a walk. It is only the old, the underfed and the feeble who require very warm clothing.

The material of clothing should be permeable to air, allowing free evaporation. Smooth, closely-woven and glazed materials are unsuitable, except for protection from the sun.

Prognosis of Cardiac Disease

The study of a group of children with rheumatic heart disease showed that, by removal of diseased teeth and tonsils, building up weight, attention to hygiene and suitable exercises, they could be carried over the dangerous years of early adolescence. If such patients can be controlled throughout their later lives, they should greatly exceed the present life expectancy (28 to 32 years).

Similar remarks apply to patients with hypertensive heart disease. The degree of longevity depends greatly on the patient's knowing what he cannot do and not doing it.—DR. L. T. GAGER, Washington, D. C., in *Southern Med. and Surg.*, Nov., 1928.

Endocrine Factors in Myocardism

In *Monde Méd.*, April 1, 1928, Dr. Claude Bernard states that he believes endocrine disturbances to be important factors in the pathogenesis of myocardism.

In cases where there is an evident thyroid insufficiency, Bernard recommends thyroid therapy in proper dosage.

In most cases of myocardism it is not a question of endocrine hyperfunction, but rather one of insufficient functioning. In the case of a young patient suffering from myocardism, without presenting any clear-cut symptoms of endocrine insufficiency, the author prescribes:

Thyroid	0.025 Gm. (1/2 gr.)
Adrenal gland	0.10 (1 1/4 gr.)
Gonad substance (male or female)	0.20 Gm. (3 1/2 gr.)

This treatment is given in addition to the customary cardiac tonics. It must be commenced immediately when the diagnosis is made and continued persistently, because it is well known that, even in clear-cut cases of thyroid insufficiency, endocrine therapy does not commence to manifest its effects for two weeks.

In severe myocardism, Dr. Bernard suggests the intramuscular injections of glandular extracts, together with small doses of insulin—

from 10 to 20 units. He cites Sergent who has found that, in some cases of articular rheumatism, ordinary doses of sodium salicylate are ineffective, but if small quantities of thyroid are added good results will follow. The same should follow in the chronic endocarditis of arthritis.

New Method of Inguinal Herniorrhaphy

The weakest link in inguinal herniorrhaphy has been the suture of the internal oblique muscle to the inguinal (Poupart's) ligament. Every recurrent case will show that the muscle has pulled away and returned to a normal position, so that, at the most, only a few strands of fibrous tissue are left to represent what was evidently a careful repair. The operation has been condemned on surgical grounds by several writers who believed that muscle would not unite with fascia.

In *Surg., Gynec. and Obstet.*, Dec., 1928, Dr. E. M. Hodgkins, of Boston, describes a new method of herniorrhaphy with living fascial sutures obtained from the rectus sheath. Strips taken from the sheath and used as suture material in the deep muscle layers form permanent tendinous strands which will not cut through, stretch out, or break away from fixed points.

The strips reflected from the rectus sheath are woven: (1) through the base of the medial leaf of the external oblique aponeurosis; (2) downward, through the edge of the internal oblique; (3) upward, through edge of internal oblique; (3) upward through shelving portion of inguinal ligament; (4) the internal oblique muscle is again pierced, from above downward, and continuing on loop, the needle is brought up through the fascial strip itself. This fascial weaving technic offers a method by which the internal oblique muscle can be fixed, either over or under the spermatic cord, as may be indicated by the type of hernia.

A modified Ferguson technic is used in most of the indirect cases and the Bassini procedure in all direct cases, imbricating the aponeurosis of the external oblique whenever possible.

The fascia-to-fascia cohesion is histologically normal and can be depended upon to hold. The fascial strips are not absorbed, and there is no muscle necrosis, since no tension or constriction is exerted.

Physical Therapy in the Medical Schools

Dr. Disraeli Kobak, in *Arch. Phys. Ther., X-Ray*, Dec., 1928, states that in none of the four Class A medical institutions in Chicago, which have adopted a course of physical therapy in the curriculum, is there any uniformity either in the length or nature of the course.

In the curriculum of Rush Medical College, the time allowed for physical therapy teaching is 48 hours. It is proposed in this time to present lectures, demonstrations and opportunities for the observation of the application of physical therapy measures.

Dr. Kobak suggests that, of the 48 hours allotted in school curriculums, 12 hours be allotted to lectures and demonstration on the essentials of biophysics, and 36 hours to the clinical program. A tentative program of lectures is given.

In connection with the same subject, Professor Grober, of Jena University, in *Arch. Phys. Ther., X-Ray, Rad.*, Dec., 1928, states: "Physical therapy should be included in the medical curriculum by a two-hour demonstration lecture weekly for one semester, to be followed in a later semester by a practical course in physical therapy to be given either four hours on one day or twice weekly for two hours each day. There should be opportunity for special lectures on special divisions of physical therapy, such as medical gymnastics, radiation, massage, roentgen-ray treatment and balneo- and climatherapy. Applicants for the license to practice must show sufficient knowledge in the ordinary methods of physical therapy and should be examined by a special, well-trained examiner."

Cardiac Pains

For immediate relief in true angina, in atherosclerosis of the large arteries, or in other vascular conditions causing paralyzing cardiac pains, nothing compares with a one-hundredth grain hypodermic tablet of nitroglycerin placed under the tongue. The spasm will usually relax in 20 or 30 seconds. Nitrite of amyl pearls crushed and inhaled will relieve the spasm sometimes quicker than the tablet. Euphyllin tablets and benzyl benzoate are exceedingly useful also, the latter for the more chronic cases, untroubled with extreme violent spells.

Substernal pain simulating cardiac pain may be due to a variety of causes. The treatment must be directed to the underlying cause, after relief of the immediately distressing symptoms.—DR. J. S. LANKFORD, San Antonio, Tex., in *Am. Med.*, Oct., 1928.

Metabolism and Vitamin A

In *J. Metabolic Research*, Jan., 1925—Dec., 1926, C. M. McCay and V. E. Nelson state that experiments were carried out in rats to determine the effect of vitamin A on the characteristic nitrogenous end-products found in the urine, in the hope that further knowledge might be obtained concerning the function of this vitamin in the body.

No appreciable differences were observed in the composition of the urine obtained from animals on a complete diet and that from animals on a diet lacking vitamin A.

The Removal of Hemorrhoids by High Frequency Currents

In *Arch. Phys. Ther., X-Ray, Rad.*, Dec., 1928, Dr. W. Bierman, New York, treats of the destruction of hemorrhoids by electrocoagulation or desiccation. The operation can be performed in the physician's office.

For electrocoagulation, usually an electro-surgical clamp, specially devised by the author, is used. The circuit is completed by placing

the dispersing piece of metal underneath the buttock of the patient as he lies upon the table.

The destructive action actually occurs within the tissues embraced by the clamp. The resistance of the tissue to the passage of the electric current of high frequency which is traversing it, between the two active electrodes on either side, causes the development of heat sufficient to coagulate it. After the base has been coagulated the area above it may be removed by scissors, scalpel or the electric current. This is better than permitting the tissue to remain in place until it sloughs off.

A "Liver Pudding" Recipe

An appetizing way to present liver to children and others having an idiosyncrasy to it is by means of a pudding, as follows:

EPSTEIN PUDDING

Eighty grams of liver, brain, spleen, kidney or goose-blood, (the liver to be boiled and ground).

250 Grams water
40 Grams zwieback flour
40 Grams granulated sugar
10-20 Grams butter
White of one egg, beaten
Tip of a knife of salt and soda
Place in a small pudding mold greased with 5 Grams of butter and dusted with zwieback flour. Cook in a water bath for three-quarters of an hour to one hour.—IRENE H. WOLGAMOT, in *Modern Hosp.*, Sept., 1928.

Spinal Anesthesia

In *Am. J. Surgery*, Dec., 1928, Dr. H. Koster, of Brooklyn, states that 3500 patients have been operated upon under spinal anesthesia and the experience gained leads him to believe that the method is far superior to any other form of anesthesia.

The method followed consisted of a spinal puncture between the second and third lumbar vertebrae, the withdrawal of 4 cc. of cerebrospinal fluid into an ampule containing 0.1 Gm. of neocaine, thorough mixing and then reinjection of the cerebrospinal fluid containing the dissolved drug. When prolonged anesthesia (up to 2 hours) is required the drug dose can be doubled, in the same amount of cerebrospinal fluid, with safety. Anesthesia of the whole body is produced.

The prone position is used for the spinal puncture. All patients over 16 years old receive a preliminary hypodermic injection of $\frac{1}{4}$ gr. (.016 Gm.) morphine sulphate and $\frac{1}{150}$ gr. (.42 mgm.) of atropine sulphate. The exposed portion of the back is painted with picric acid (6 percent in 60-percent alcohol). An imaginary line between the superior part of both iliac crests crosses the spinal column between the third and fourth lumbar vertebrae. The depression above the imaginary line is the interspace between the second and third lumbar vertebrae.

The needle is introduced horizontally but it may be necessary, occasionally, to tilt it slightly upward.

In the case of an operation involving the upper portion of the trunk or head, 0.2 Gm. of neocaine should be dissolved in 7.5 or 8 cc. of cerebrospinal fluid.

In the author's series of cases there has been no fatality directly attributable to the anesthetic. All kinds of operations have been done, including amputations of the lower limb, colectomy, hysterectomy, craniectomy, mastoidectomy, etc.

The method may be applied to children as well as to adults, but a smaller quantity of drug is used; in children between 2 and 8 years old, about one half of the 4 cc. of cerebrospinal fluid containing 0.1 Gm. of neocaine is injected.

The author considers that the fall in blood pressure which is frequently observed following the induction of spinal anesthesia may be obviated by placing the patient in the Trendelenburg position.

Physical Therapy Treatment of Scars

In *Urol. and Cutan. Rev.*, Dec., 1928, Dr. H. C. L. Lindsay, Pasadena, Calif., states that a raised scar may be reduced rapidly to the level of the surrounding skin by freezing it with carbon dioxide snow, and it may be prevented from resuming its former proportions by either x-ray or radium exposure.

A tube is used which is hard enough to back up a 6-inch spark and, according to the case, between five and nine Holzknecht units, unfiltered, are given, the surrounding parts being protected with several layers of lead foil through which holes, the exact circumference of the scar, are cut. The thicker the scar the greater should be the x-ray dose. The freezing should be done after the raying and at the same visit. The objections to the method have mostly been raised by inexperienced operators who freeze too long or unskillfully and produce sunken scars. It is better to stop the freezing early rather than late and, if a portion of the scar remains, the most delicate finishing touches can be given to the remainder with the water-cooled quartz lamp.

"Sunken" scars should be frozen over with carbon dioxide snow; starting the freezing well beyond the scar margins. The ridges should be frozen level with the base of the scar. X-rays do not interfere with the regeneration of tissue over frozen spots, in ordinary dosage. It is possible, in limited cases, by these tactics, using x-rays and freezing with carbon dioxide snow, to obliterate almost completely scarring from lupus vulgaris and occasionally to clear up active spots of the disease. The water-cooled quartz lamp may also be used in these cases to give the final touches.

Is Tonsillectomy of Value?

An editorial in *Internat. Med. Digest*, Nov., 1928, reviewing recent studies of the remote effects of tonsillectomy in protecting against infection, states that, while the investigators do not wish to convey the impression that tonsillectomy increases the susceptibility to diseased conditions, yet it is quite apparent, from the

observations, that it is not the safeguard that it is commonly supposed to be. The incidence of lesions usually attributable to tonsillar infections was practically the same in tonsillectomized and non-tonsillectomized children.

It seems to have been clearly demonstrated that tonsillectomy will, not only not cure long-standing chronic conditions, but it may actually exaggerate the condition; it may initiate an attack of acute rheumatic polyarthritis in a certain number of cases and, further, an actual spread of endocardial and myocardial infection. The hope for improvement after tonsillectomy in adults with an existing cardiac disease is based on a shaky foundation.

Pediatricists will have to follow the example which is being shown by an increasing number of internists, who are not recommending the removal of tonsils unless there is incontrovertible evidence of the fact that they should be enucleated.

Shoes

The question of low or high heels is the only one in which the style of the day interferes with therapeutic modifications.

The moderately high heel is the best. High heels (that is, French or spike heels, as worn on women's shoes) always interfere with the correction of any foot trouble, as they throw the weight of the body on the forward part of the foot. With a foot kept in such an abnormal position, it is impossible to make it normal in other respects. These heels also tilt the pelvis forward and this abnormal position produces a lordosis and strain of the lumbar ligaments.

Shoes will not correct defects of the feet; but if the trouble is due to a poorly fitted shoe, the proper shoe will correct it.—DR. J. BRUGMAN, in *Northwest Med.*, Dec., 1928.

Colloidal Lead and Malignant Disease

Several papers on this subject have appeared in recent issues of the *J.A.M.A.*

In the issue of Jan. 5, 1929, Dr. C. A. Waters, of Baltimore, and his associates give an historical sketch of colloidal lead therapy. They have treated altogether 15 patients; in the last 8, colloidal lead phosphate solution, as described by Bischoff and Blatherwick, was used; and, in all cases, this treatment was associated with roentgen-ray therapy. The cases treated were all quite hopeless.

From the author's experience with this small series, he could not be convinced of the beneficial effect of colloidal lead, and is inclined to attribute such transient but definite improvement, as was noted in some cases, more to the effect of the high-voltage roentgen therapy than to the colloidal lead.

In the same issue of *J.A.M.A.*, Dr. H. J. Ullmann, of Santa Barbara, refrains from giving definite statistics which, on account of the types of cases treated, would, he thinks, be unfair to the method. He states that colloidal lead phosphates and tetra-ethyl lead appear to be the only lead compounds suitable for trial in intravenous cancer therapy. He has seen sufficient action of lead on malignant tumors to warrant further trial and there is no question that, in

many forms of cancer at least, lead definitely augments the effect of radiation.

In *J.A.M.A.*, Jan. 12, 1929, Dr. A. Soiland, of Los Angeles, and associates report the results of colloidal lead phosphate treatment in 31 patients with advanced carcinoma of various organs. Eight patients are still living but 4 are failing rapidly. Four are in good condition but the disease is still present and palpable, although apparently arrested.

That the treatment has a temporary good effect cannot be denied, but, when reviewed over a longer period of time, the results of the method are not encouraging.

The results reported by Dr. Leila C. Knox, of New York City, in *J.A.M.A.*, Jan. 12, 1929, in a series of 40 cases, with various types of malignant tumors, treated with colloidal lead or lead and x-rays combined, show that 4 patients are at present wholly free from physical signs of their original disease, but it cannot be assumed that a cure has been obtained. Several patients were benefited temporarily.

The general results obtained by this author lead to the confirmation of the facts demonstrated by Blair Bell that, in a few persons with inoperable and advanced neoplasm, arrest of the disease may be obtained by the combined administration of lead and x-rays.

Ultraviolet Treatment of Psoriasis

From the opinions of a number of dermatologic specialists, published in the *Brit. J. of Actinotherapy*, Dec., 1928, concerning the value of ultraviolet rays in the treatment of psoriasis, it cannot be stated that this mode of treatment is specific for psoriasis. Psoriasis is a disease the cause of which is unknown and its pathology has not been worked out.

Two things appear clear: (1) That ultraviolet treatment does good in some cases by itself and in many cases seems to be a good adjunct to other forms of treatment; (2) that relapses are prone to occur. Time alone will enable skin specialists to differentiate the cases in which ultraviolet therapy is useful.

The dose found most generally effective is a ten-minute exposure at the distance of one foot, with the surrounding healthy skin protected. The reaction is very rarely exudative, though the erythema and exfoliation may be severe and the subjective symptoms most uncomfortable for 48 hours afterwards. Two or three lesions can thus be treated daily until the body is clear.

Medical Emergencies in Childhood

Dr. J. C. Spence, London, England, in *Practitioner*, Dec., 1928, states that, in hemorrhagic disease of the newborn, the right and proper treatment is to inject some of one of the parents' blood into the muscles or loose tissues of the infant. Ten (10) to 20 cc., three times during the first day, twice during the second day and once on the third day usually suffices.

In hypertrophic pyloric stenosis, the most important thing is early and accurate diagnosis. The Rammstedt operation should be the universal treatment, and early diagnosis should reduce the present 50 percent mortality to 5 percent.

For severe diarrhea, it should be seen to that the infant receives not less but more fluid than before its illness. The total fluid for 24 hours should be from 40 to 60 ounces. The milk feeding should be reduced or diluted, using half strength isotonic saline solution or ordinary water. In this condition, quarts of water are better than drops of brandy.

Whenever a child is born into a household wherein someone is known to have or likely to have tubercle bacilli in his sputum, a clear explanation should be given of the risks that are run and of the means of avoiding them by separating the child at once from its surroundings.

Bacteriophage in Suppurative Conditions

Dr. Thurman B. Rice of Indianapolis, in *J. Indiana M. A.*, Dec., 1928, states that he has used bacteriophage filtrate treatment in over 150 cases of general suppurative conditions. The treatment offers attractive possibilities for staphylococcal lesions, when the bone is not involved nor the blood stream invaded.

Bacillus coli infections have yielded, for the most part, but are not so amenable as the staphylococcus lesions.

Stock preparations have been found just as effective as bacteriophage strains developed against autogenous cultures, but they may not "hit" so often.

Actinic Therapy of Mental Patients

Drs. J. Allen Jackson and L. R. Chamberlin, of the State Hospital, Danville, Pa., in *M. J. and Record*, Dec. 19, 1928, report their results in the treatment of psychoses by actinic therapy (Alpine Lamp). Of 73 cases treated, 45 were of the manic depressive type. Of these latter, 26 gained physically, 5 showed no change of weight and 14 showed loss of weight. Twenty-two (22) gained mentally; 23 showed no gain.

The remaining psychoses are too few in number to make any deductions as to the value of the treatment in any given psychosis. As a general rule, paretics were the first to gain weight.

Pain in the Back

In *Northwest Med.*, Dec., 1928, Dr. H. C. Blair, Portland, Ore., states that the x-ray film is unquestionably the best method of arriving at a correct diagnosis of the underlying cause of pain in the back. Lateral views should always be taken and smaller stereo films made of the affected areas to get detail.

Spinal arthritis and injury (especially in the region of the fifth lumbar vertebra) are the most common causes of pain in the back. Sacroiliac disease and injury are not common and the author has never seen the so-called slipping of this joint.

Treatment of ordinary back injuries consists of rest in a position to avoid deformity. The bed should be hard; a soft bed produces kyphosis.

Back pain due to infection calls for relief of the pain, removal of the cause and prevention

of deformity. Rest and physical therapy will relieve pain. Local strapping, tight braces, recumbency on a board bed will provide ample rest. All foci of infection should be removed.

Most cases of sacroiliac pain are relieved by adhesive strapping; if chronic, they may need manipulation to break up adhesions.

Thallium

Thallium has been used pharmacologically chiefly as a depilatory and as an anhydrotic agent. Apparently its action is upon the central nervous system and is cumulative, the drug being stored mainly in the muscles. Some toxic action must be endured for the sake of the therapeutic benefits. The nerve and kidney damage caused by thallium is slight and apparently transient.

The pharmacologic effects of thallium are somewhat similar to those of lead and arsenic, but thallium especially affects the endocrines and metabolism. Its depilatory action does not permanently injure the hair follicle.—DR. M. J. ORMEROD, in *Canad. M.A.J.*, Dec., 1928.

Anti-Tuberculosis Measures in Rural Districts

DR. D. A. Stewart, in *Canad. M.A.J.*, Dec., 1928, states that, in rural Manitoba, where a population of less than a half million is scattered over a very wide area, the tuberculosis problem is met by small travelling clinics sent out by the Manitoba Sanatorium. The clinics consist of members of the medical staff, a public health nurse, and an x-ray technician with a portable machine. When held in small communities, the local doctors and people are notified beforehand and the clinics draw in persons within a radius of 80 miles from them. Even if tuberculosis is not found, other health defects are noted. The plan works admirably in detecting incipient and established tuberculosis.

Salpingitis

Salpingitis, according to DR. C. Jeff Miller, of New Orleans, in *Am. J. Obst. and Gynec.*, Dec., 1928, is an infectious disease in which autosterilization will occur under expectant treatment in the great majority of cases, and in which a spontaneous cure, at least clinically, is possible in a very fair majority.

There is no indication, therefore, for immediate surgery in any case, and often there is no indication for delayed surgery either.

The patient has a right to her chance to preserve her sexual apparatus and it is unfair to deprive her of it. If surgery must eventually be done; if after a reasonable trial it is clear that a complete cure cannot be hoped for, then let the operation be radical enough actually to cure the disease, being sure, however, that this ruthlessness is not extended to organs which are not intrinsically involved in the infectious process.

In tubal disease, almost more than in any pathologic condition of the female pelvis, the sanest surgeon, the wisest gynecologist, is he who refrains longest from the practice of his

art, but who, when he is obliged to exercise it, tempers his conservatism with sufficient radicalism to ensure for his patient a permanent cure.

Spurious Pregnancy

Dr. R. Paddock, of St. Louis, in *Amer. Jour. Obst. and Gynec.*, Dec., 1928, divides spurious pregnancy into 3 types: Those cases in which there is a decided fear of pregnancy or an aversion to pregnancy; cases of patients who are extremely desirous of becoming pregnant; and those cases in which pregnancy is imagined because of some functional disturbance attended by symptoms which simulate those of pregnancy.

Although many cases simulate real pregnancy, almost all of them give a history of some phase of the condition that does not follow the normal course of pregnancy; the positive signs of pregnancy are absent in the condition and with modern methods errors of diagnosis are uncommon.

The author thinks that many of these cases are to be explained by what is called the "maternal instinct" which is common to all females. When placed in circumstances in which the female feels that pregnancy should take place or is desired, the idea of pregnancy becomes fixed and intense emotionality is capable of convincing the patient of the presence of a number of symptoms; in fact, psychic phenomena can bring about certain of the symptoms by altered endocrine secretions and reactional obsessions.

Lying as a Social Phenomenon

Morality is not biologically inherited. Social lying is a protective phenomenon of an individual against the group, similar to the "lying" of which nature is guilty for biologic purposes, in the protective coloring of plants, the trickery of carnivorous plants, etc.

The social direction and guidance, the social standards and the social practices determine the status of lying as a principle of action. Society, therefore, must recognize lying, within limitations, as a form of conduct which promotes the adaptation of man to his environment. When a man lies, he is but acting out of fear and in order to secure some personal benefit or advantage.—DR. IRA. S. WILE, New York, in *Arch. Neurol and Psychiat.*, Dec., 1928.

Physical Therapy in Prostatism

In *M. J. and Record*, Dec. 19, 1928, Dr. R. Kovacs, New York, suggests that the sinusoidal or the interrupted continuous current may be applied, in the treatment of prostatism, by a metal electrode in the rectum and a wet pad electrode over the symphysis.

Depending upon its absorptive, pain-relieving action, diathermy through the prostate may be tried instead of the powerful mechanico-massage effects of the static wave current. A metal electrode similar to the one used in static treatment is introduced into the rectum and a block tin pad, 4 inches by 5 inches, applied above the symphysis, or, instead, a belt electrode is

applied around the waist. A current from 600 to 1200 milliamperes may thus be administered, always to be kept within comfortable toleration of the individual patient. It is best to follow diathermy with digital massage, if the sinusoidal or static wave current is not available.

Lack of improvement after half a dozen or more treatments may be taken as evidence that the pathologic condition in the prostate is of a more permanent nature, necessitating other measures. But even in a case diagnosed as an organic hypertrophy or adenoma, a series of static wave treatments or diathermy may be worth trying because, by removing part of the accompanying edema and infiltration, a satisfactory measure of relief may often be achieved.

The Hyperpnea Test in Epilepsy

Several writers have observed that hyperpnea (deep or rapid breathing) helped to establish the diagnosis of a brain lesion.

In *Arch. Neurol. and Psychiat.*, Dec., 1928, Dr. Jos. Fetterman, Cleveland, reports that he has tried the hyperpnea test in 35 epileptic patients.

In the average case, after the deep breathing is instituted for a few minutes, the patient appears drowsy and yawns. His color becomes more pink than usual, his eyes shiny and the pupils dilate somewhat. After an additional five minutes, he complains of being dizzy or tired. By this time (in some cases much earlier and in others later), various muscle quiverings are visible in the face, neck or chest. Sometimes there are spasms of the fingers and occasionally generalized convulsions. In negative cases, however, the breathing is continued for from half an hour to an hour, and little if any change follows, except drowsiness, fatigue and coldness in the fingers.

In 4 of the 25 patients, the test produced the attacks which the patient ordinarily had.

Chronic Appendicitis

Dr. H. W. Bettmann, of Cincinnati, in *Ann. Intern. Med.*, Dec., 1928, states that clinical results show that operations for chronic appendicitis have disappointing results in 40 percent of the cases. Nearly 60 percent of patients who have had an unsuccessful appendectomy had received no adequate study before operation.

The mortality from appendicitis has increased nearly 31 percent in the period 1901 to 1922. Part of the increase is due probably to operations by untrained surgeons.

Besides those dying from the operation and those unrelieved, about 12 percent are made definitely worse by it.

The main cause of needless appendectomies is the "furor operandi" of ambitious surgeons, whose chief aid and abettor is the roentgenologist. Literature shows that there is no department of roentgenology in which so much confusion, contradiction and chaos exists as in the interpretation of appendiceal roentgenographs.

Appendicitis is mimicked by a host of other conditions and the great trouble is that the voluminous literature does not give any definite method by which preoperative differentiation can be made between true and false appendicitis.

There are several reasons why patients, whose symptoms suggest the diagnosis of chronic appendicitis, should be subjected to a prolonged and careful study. The symptoms may be one result of a lesion of the sympathetic system, and there is no necessarily increased liability of the appendix to become a prey to severe acute inflammation.

Hemoglobin Percentage and Operability of Cancer

There is a general impression that when a patient with carcinoma shows hemoglobin reading of 40 percent or less the case is not operable.

In *Ann. Intern. Med.*, Dec., 1928, Drs. H. R. Hartman and T. W. Brockbank, of the Mayo Clinic, report the results of a special investigation of several hundreds of cases to test the validity of this view. They found that the mean hemoglobin in the operable cases was 34 percent and in inoperable cases 32.5 percent.

Hemoglobin below 40 percent is not, in itself, sufficient reason for a surgeon not to explore in a case of carcinoma, even though the Mayo Clinic records show two cases of inoperable carcinoma of the stomach to one of operable in which the hemoglobin was below 40 percent.

Clinical Use of Irradiated Ergosterol

In *Am. J. Dis. Child.*, Mar., 1929, Dr. E. T. Wilkes and associates from the Dept. of Pediatrics, Cornell Univ. Med. College, state that 24 infants with rickets, varying from mild to severe forms, were successfully treated with irradiated ergosterol; 2 infants with tetany were cured by it.

The irradiated ergosterol was well taken and well tolerated. Several of the patients had previously refused or vomited cod-liver oil.

It was found that irradiated ergosterol requires about three weeks to cause the serum phosphorus and calcium concentration to return to normal, about the same time for x-ray signs of healing of the bones to appear, and about six weeks for complete healing. Craniotabes was healed within an average of one month in the authors' series of 12 cases.

Healing of rachitic bone took place in one patient with bronchopneumonia, despite a low serum phosphorus and calcium finding of 20.5 mg. per 100 cc.

The Proctoscope and the General Practitioner

According to Dr. R. G. Douglas, Shreveport, in *Tri-State M.J.*, Oct., 1928, the proctoscope is as easy to use as the stethoscope, ophthalmoscope or other common diagnostic instruments, and the average physician can learn to diagnose correctly and to treat the commoner rectal region diseases.

The best position of the patient is the left lateral or semi-prone, with the right leg flexed on the abdomen. A special, expensive table is unnecessary.

No preliminary preparation of the patient is necessary except, perhaps, castor oil the previous night and an enema on the day of examination.

All manipulations should be gentle. The patient should be directed to "strain down", in order to relax the sphincter and evulse the canal. The majority of lesions are in the terminal three-quarters of an inch of the anal canal; i.e., orifices of fistulae, fissures, polypi, hemorrhoids and indurations produced by abscesses.

After preliminary digital search, the small anoscope is gently introduced and the loop of the pelvic colon, as well as the concave surfaces of Houston's valves, may be seen. Ulcer, cancer or other lesions, if present, may be observed. Having finished this procedure, the anoscope is withdrawn and the proctoscope inserted. On introducing the instrument observations must be confined to its passage; study of the mucous membrane is made during its withdrawal.

With the correct use of the proctoscope, knowledge and skill to make a diagnosis need not be lacking; only, generally, physicians do not care to go to the trouble of making a proper investigation.

Maternal Impressions

When we examine all evidence, we find that there is no support for the idea that maternal impressions affect the unborn child; and when we study closely the development of the baby before birth, we come to realize that all of these defects have occurred in the very early weeks of pregnancy, so that the child in the uterus is showing the defect long before the mother experiences the fright, which has absolutely nothing to do with the deformity.—DR. MADGE T. MACKLIN, London, Can., in *M. J. and Record*, Jan. 16, 1929.

Ultraviolet Therapy of Angina Pectoris

In *Wien. klin. Wchnschr.*, June 21, 1928, Dr. E. Freund reports favorable results with the quartz lamp treatment of angina pectoris. In this disease the object of the treatment is to produce the greatest possible erythema of the skin, hence the source of the rays must be very rich in ultraviolet and the dosage reliable. Weak irradiation is not only useless but may even be injurious. The area irradiated includes the heart, the large vessels and the area of distribution of the pain.

Irradiation is first applied over the anterior surface of the chest, from the jugular vein down to the xiphoid cartilage, bordered by the mamillary lines. The second area irradiated is usually the entire left side of the chest. The third area is the back, over an area as large as that on the anterior aspect of the chest. The left arm and shoulder may also be irradiated. If there are pains on the right side, this is also treated.

Treatment is given at intervals of 6 to 12 days. The dosage depends upon the strength of the burner. It is better that the dose should be too strong than too weak and there is no danger since only a limited area of the skin is treated. Some patients are benefited by three to six treatments.

Seven cases showed a definite drop in the blood pressure; in ten there was no change; in one the pressure was increased. However, blood pressure changes seemed to have no effect on the patient's improved condition.

Specific Cause and Treatment of Measles

A good deal of evidence has been offered in support of a specific agent—the *Streptococcus morbilli*—being causative of measles. To reconcile conflicting claims it is suggested that this microbe in one of its mutations is filterable.

In *Am. J. Dis. Child.*, Mar., 1929, Dr. N. S. Ferry, Detroit, reports that, in a series of 83 consecutive cases, serum from patients convalescing from measles agglutinated the *Streptococcus morbilli* in 86.7 percent, as compared with the 9 percent reported for certain other micrococci considered specific to the disease. If the agglutination test indicates anything of a diagnostic nature, these results should be considered of extreme importance in the etiology of the disease.

It was also shown that an antitoxin prepared by immunizing horses with the measles streptococcus toxin, appeared to protect susceptible persons, when used prophylactically in sufficiently large doses.

Paralytic Ileus and Spinal Anesthesia

Cases of postoperative paralytic ileus occasionally resist every known method of relief. Dr. W. E. Studdiford, New York, in *Surg., Gynec., and Obstet.*, Dec., 1928, states that, in such obstinate cases, spinal anesthesia may often be used successfully. Five such successful cases are cited.

The needle is passed into the spinal canal between the second and third lumbar vertebrae. About 6 or 7 cc. of spinal fluid are withdrawn, in which 0.3 Gm. of novocain (procaine) is dissolved and the fluid then reinjected into the canal. Ten (10) cc. of spinal fluid are then withdrawn and reinjected to aid in the diffusion of the solution.

The abdominal distension usually disappears within 5 minutes or so. No ill effects were noted except in one case, in which there was a marked drop in blood pressure. Spontaneous passage of flatus may occur within an hour or so, or it may follow a medicated enema.

The author cites Grieg as having collected 44 cases of dynamic ileus treated by spinal anesthesia, in 30 of which it was successful.

Physical Therapy in Bell's Palsy

Bell's palsy is a simple inflammation of the facial nerve, due to trauma or infection.

As stated by Dr. W. Martin, of Atlantic City, in *M. J. and Record*, Dec. 19, 1928, the former neurologic teaching, that no electric current treatment of paralysis should be used until six weeks from its inception, ought to be revised in the case of Bell's palsy, in which there is no central lesion. The inflammation, hyperemia and exudate may be treated by radiant heat and

light, the carbon arc light, infrared energy or diathermy. These may be applied from the first day of the paralysis. The mechanical static wave current, following diathermy, is best for the removal of deposit. For the wave current a shaped metal electrode fitting the front and back of the ear is used; this is covered by a small towel held *in situ* by the patient and connected with the positive pole of the machine. The patient sits on an insulated platform; the negative pole is grounded.

When the palsy is some weeks old both of the above methods will have to be used for a longer time and more intensely and the sinusoidal galvanic current will be found particularly useful.

A Useful Lubricant

Before introducing any part of the hand or instruments into the vagina, they should be well lubricated. After considerable experimentation, I selected the following formula, which makes about 2 gallons of a very satisfactory preparation:

Irish moss	.....	3iv (16.0)
Gum tragacanth	.....	3viii (32.0)
Cover generously with cold water and allow to stand for 24 hours, with occasional stirring. Then strain through 2 or 3 layers of gauze.		
Next mix:		
Eucalyptol	.....	3iss (6.0)
Formalin	.....	3i (4.0)
Boric acid solution (4%)	..	3ii (8.0)
Glycerine	.....	3xii (48.0)

Stir this mixture into the moss and tragacanth base, previously strained, and add sufficient water to make the lubricant of the proper consistency. It is cheap, distributes itself well over rubber and metal, is freely soluble in water, does not become lumpy and is mildly antiseptic.—Dr. W. T. DANNREUTHER, New York, in *M.J. and Record*, Jan. 16, 1929.

Calcium Deficiency and Behavior Disturbances

In a number of patients showing incorrigibility, nonamenability to discipline and assaultiveness, a non-utilization of calcium was found. Both blood and muscle calcium were deficient. The administration of parathyroid extract (Collip) brought about a notable improvement. The preparation was given hypodermically, in doses varying from 5 to 7 minimis. It is combined with calcium lactate by mouth and direct or artificial sunlight exposure of the glandular area.

The syndrome of behavior abnormalities, disturbances in growth, blood pressure and gonadal development is frequently observed.—Dr. W. TIMME, New York, in *Arch. Neurol and Psychiat.*, Feb., 1929.

Sleep

In a symposium on the value of sleep in *The Practitioner*, Jan., 1929, Sir R. Armstrong-Jones draws attention to the harmful effects of noises and speed in curtailing the sleep of adults and especially of children. There is a great increase of nervousness in school-children. Another

contributor to the symposium remarks that it is such children that, later on, develop habit spasms, various forms of tics and mental instability of different kinds.

In regard to sleeplessness, while Sir. R. Armstrong-Jones thinks that it is advisable to avoid drugs, as they all are neurotic poisons, Dr. J. S. R. Russell states that, in his experience, there can be no question that, provided the right hypnotic is selected and is administered in suitable doses, no one should be allowed to suffer from insomnia without relief being given by means of sleep artificially induced. As the mental state of the individual plays an important part in keeping up the inability to sleep, the prescription can be varied so that, in due time, the original hypnotic is replaced in the medication by some harmless ingredient, without the patient's knowledge.

An editorial in the *Canad. M.A.J.*, Nov., 1928, discussing the various theories regarding the production of sleep, states that there is some evidence that it is due to an auto-intoxication. The state of wakefulness seems to lead to the formation of a toxin which is different from the toxin of fatigue and the exact nature of which is not known. The toxin of fatigue would produce a numbing of the sensibilities and a loss of consciousness. Auto-suggestion is probably associated with the action of the toxin.

Why an Old Medical Society has Survived

The Thurber Medical Society, of Milford, Mass., has lived 75 years. Why? This question is answered by Dr. J. M. French, in *New England J. of Med.*, Oct. 4, 1928.

The constitution of the Society recognized but two objects—medical improvement and the cultivation of comity and good fellowship. The social side of the society has always had a leading place.

The Society has always maintained itself as a strictly independent local unit. All regularly graduated doctors are eligible for membership. Although members are also members of the State Society, the Thurber Medical Society is not affiliated with any district society.

Furthermore, it is in the creed of the Society that all its members should be leaders in every movement which tends to the promotion of health, longevity, intelligence and morality in their communities.

The Bleeding Point in Epistaxis

Plugging the nose in a case of severe epistaxis is merely a procedure of expediency. Before resorting to tampons we should calmly look for the customary bleeding points in their order of frequency. First, Kiesselbach's area; second, upper portion of the nose near the roof of the middle turbinate; third, on the middle of the septum where nevi may exist; fourth, along the convexity of the inferior turbinate or the floor, three-quarters back; fifth, for nevi scattered through the nose.

The tampon is often the only means of stopping hemorrhage from an unknown source. The Symes method of a posterior plug is as follows:

A string 2 feet long is tied at its center to the tip of a soft rubber catheter. After passing the oiled catheter through the nose one string is brought out through the mouth. A pledge of gauze is tied in its middle and pulled into the back of the nose by the nasal string which is held tight while the anterior portion of the nose is packed. The other string is fastened to the face.—DR. G. B. McAULIFFE, in *M. J. and Record*, Jan 2, 1929.

Fatal Minor Hand Injuries

Dr. G. G. Corbet, in *Canad. M.A.J.*, Jan., 1929, mentions 4 cases of minor hand injuries which resulted in death from general infection. All 4 patients were not seen by a surgeon until a considerable time after the accident.

Dr. Corbet takes occasion to remark that the results obtained from the treatment of infected wounds during the World War were better than those we are now obtaining from the treatment of industrial accidents. Industrial injuries should be treated along much the same lines as war casualties.

Varicella and Measles Prophylaxis

In *Ann. Intern. Med.*, Dec., 1928, Dr. J. V. Cooke, of St. Louis, reports that, of 369 infants and young children exposed to varicella and protected by inoculations of fluids from a fresh vesicle, only 74 (20 percent) developed varicella. Of 206 exposed and unvaccinated children, 158 (77 percent) developed varicella.

In regard to measles, results have shown that almost 90 percent of children, given convalescents' serum during the first week after exposure, failed to develop the infection and in those who did develop it the disease was of a mild and abortive type. It has been found that from 2 to 4 cc. of human immune serum is usually sufficient to protect infants under 3 years old, if given during the first four days after exposure; twice this amount is advised for the next two days, and 7 to 8 cc. if given later. The earlier the prophylactic dose is given after contact the better.

Specific Treatment of Amebic Dysentery

Dr. O. W. Bethea, of New Orleans, in *J.A.M.A.*, Jan. 26, 1929, states that the following method of ward treatment of amebic dysentery has been found very satisfactory in the Charity Hospital, New Orleans:

First Period (Five Days): One grain (0.065 Gm.) of emetine hydrochloride is injected daily into the deltoid muscle.

During this period no other medication is employed. Unless contraindicated, the patient may be put on the full typhoid diet.

Second Period (Ten Days): Emetine is continued, as suggested, and one of the following drugs is added: ten phenyl-salicylate (salol)-coated, 5-grain (0.3 Gm.) ipecac pills, each night at bedtime; or two tablets of acetarsone each morning on awakening; or two or three pills of an organic iodine preparation (iodo-

oxybenzenepyridine sulphonate) three times a day.

If the ipecac pills are given at bedtime, the patient is given a soft diet during the day, up to 1 p.m., after which time nothing but simple liquids, as water, tea, coffee, bouillon and ginger ale are given.

If the acetarsone is given in the mornings, no food is allowed for four hours, except water, tea, black coffee (without milk), bouillon or ginger ale.

During the second period, the patient is given a daily colon irrigation of 30 grains (2 Gm.) of quinine sulphate in one-half gallon of warm water.

The typhoid diet is continued.

Third Period (Three Months): One day each week a full treatment is given, as directed in the second period.

Differential White Cell Counts of Abdominal Surgery

In *Illinois M. J.*, Jan., 1929, Dr. H. P. Miller, Rock Island, states that the total white count and differential count, taken together, are an extremely valuable prognostic and diagnostic aid in surgery.

The total white count in acute surgical conditions is proportional to the strength of the patient's resistance, while the polynuclear count is proportional to the gravity of the condition. Mild septic conditions show a polynuclear count of 75 or 80 percent. A count over 85 percent indicates pus somewhere in the system and higher counts—over 90—indicate grave conditions such as a diffuse peritonitis.

A graphic method, with preoperative and repeated postoperative counts should be routine. Complications are made evident before clinical signs appear and lead to earlier, more effective, treatment.

Endocervicitis and Physical Therapy

Dr. A. D. Willmoth, of Louisville, in *Phys. Therap.*, Dec., 1928, states that in cases of endocervicitis, hydrotherapy in the form of douches is of value for its thermic and detergent action. High-frequency currents have a field of value in the gonorrhreal cases, as also in those where it is decided that destructive action on the mucosa is necessary.

The constant current offers the surest and most rapid method, practically destroying infections, as they come under everyday observation. While the writer is satisfied that the silver electrode is as reliable as and perhaps more so than the copper or copper-mercury amalgamated electrode, the latter has been so generally employed and with such universally good results that it needs no further commendation.

The amalgamated electrode is introduced into the cervical canal and the cord attached to the positive pole of the apparatus, the negative being applied through the indifferent electrode to the most convenient part of the patient's body. The current is turned on and gradually increased until the meter reads 20 m.a. and allowed to pass at this dosage for 15 minutes; the

current is then gradually turned off. This will affect the deposit of oxychloride of mercury and copper within the tissue to be treated. Repeat this treatment twice weekly.

Treatment of Secondary Anemia

A majority of girl students coming to a college clinic suffer from secondary anemia. These girls have but little chance of being in the open air during sunshine hours; they are then in classroom, laboratories or in the library.

Physical therapy has proved its value in these cases. In one large college clinic, as stated by Dr. J. Jongewaard, in *Arch. Phys. Therapy, X-Ray, Radium*, Nov., 1928, there are three air-cooled quartz mercury lamps which are in use most of the time. The ultraviolet rays act very perceptibly and surely build up the blood of these girls, increasing the hemoglobin to a marked degree in from 4 to 8 weeks. On Oct. 13 one of these girls had a hemoglobin of 60 percent with a correspondingly low red count. By the following January the hemoglobin had reached 80 percent. In another case, during about the same period, the hemoglobin increased from 50 to 80 percent.

The treatments usually begin with one or two minutes of exposure of the entire body under the lamp; the exposure is increased one minute daily until an exposure of 15 minutes to each side of the body is given. During the rest periods the hemoglobin drops in almost every case.

The patients also enjoy these treatments and are greatly interested in them and in their results.

Comparing the ultraviolet treatment with that of iron, given intravenously, the thought of having a needle thrust through the skin twice weekly is not nearly so pleasant as resting lying down and "drinking in sunshine."

The author thinks that first place should very definitely be given to ultraviolet ray treatment of secondary anemia, with food treatment a close second. A combination of the two seems ideal, since sunshine is part of nature's mechanism for promoting the assimilation of iron in foods.

Long Wave-Length X-Rays

In *Phys. Therapy.*, Dec., 1928, Dr. Chas. Lerner, New York City, discusses the physics and biology of long wave-length x-rays; i.e., rays whose wave-lengths vary from 1.6 to 2.2 Angstrom units.

These extremely long wave-length roentgen rays are electromagnetic vibrations having a beam of heterogeneous rays with a considerable percentage of wave-lengths averaging about 2 A.u. and are produced by voltages below 10 kilovolts, in a modified Coolidge tube.

Dr. Lerner has used these rays in a number of varying skin disease cases: the formula generally employed being 8 kilovolts, 8 milliamperes, 6 cm. distance, 3 minutes exposure. His experience in the use of these rays (which correspond to Bucky's "grenz" rays) is not altogether in agreement with those of other investigators. Up to date no definite atrophy, telangiectasia or other sequelae have been ob-

served on patients treated $2\frac{1}{2}$ years ago; but it is possible that such may yet develop. This possibility grows stronger, theoretically at least, if large doses are administered at shorter intervals; so that the future may show that large quantities of this soft radiation are ultimately as harmful as smaller doses at high voltages.

While there are apparent and encouraging advantages in the use of long wave-length x-rays, there are still many technical and clinical disadvantages which, perhaps, time may overcome.

The Signs of Vitamin Deficiency

Dr. G. J. Warnshuis, in *Am. Med.*, Dec., 1928, gives several signs which he considers as symptomatic of vitamin deficiency and indications for ultraviolet therapy.

First, there is an abnormal sensitivity to sudden changes of temperature. The subjects are always cold and have, especially, cold extremities.

Second, there are functional disorders of the gastrointestinal tract which are not directly the result of organic disease.

A third class of symptoms are those associated with mild functional disorders of the endocrine glands.

Migratory pains, distinct from neuritis which occurs in a fixed region, are often observed in such subjects.

Dr. Warnshuis looks upon the vitamins as expressive of delicate chemical changes in certain substances, after these have been acted upon by ultraviolet rays. What, exactly, these substances are, is as yet problematic. In many cases where there are no objective symptoms indicative of any vitamin deficiency, the general systemic improvement of the patient after ultraviolet irradiation will be the therapeutic test of such deficiency being the real basis of ill-health.

Ultraviolet in Whooping Cough

In the Texas State M. J., for July, 1928, Capt. W. W. McCaw, M.C., U. S. A., reports his results in a series of 201 children and 25 adults, treated with ultraviolet irradiation by means of a quartz mercury-vapor lamp.

The ages of the children ranged from three months to ten years. They were stripped and exposed to the irradiation on the upper part of the body, both front and back. Cotton pads were tied over their eyes with a bandage. An interesting feature is the care that was given to the duration of exposure, this being kept very short to begin with. Blond children, under two years of age, were started with fifteen seconds' exposure, which was increased fifteen seconds every second day until they were receiving two and one-half minutes each, to the front and back. The initial period of exposure for brunettes was a half-minute.

Blond children over two years of age were started at one-minute exposure, increased one half-minute every second day until they were receiving five-minute exposures each, to front and back. Brunettes of this age were started at one and one-half minutes.

Adults, if blond, received a two-minute initial exposure, while brunettes were given three minutes, increased one minute every second day.

The burner was at a distance of twenty-four inches above the body.

McCaw reports the results of his series of cases, in all of which the diagnosis of whooping cough was definitely established, as follows:

Of 201 children, 52 percent were cured, 38 percent improved, and 10 percent unchanged. Of 25 adults, 80 percent were cured and 20 percent were improved.

By the term "cured" is meant relieved from vomiting, whoop and paroxysmal coughing. Some of the cases placed in this class continued to have an occasional slight cough during the day.

By the term "improved" is meant relieved from vomiting and whoop, but with continuance of paroxysmal coughing, although in milder form.

In both the "cured" and "improved" classes, the benefit was evident after the second and third treatment; cough was lessened, and the whoop less frequent. The duration of the disease was shortened by two or three weeks in half of the cases classed as cured. Complications were absent. The general tonic effect was very noticeable in both the "cured" and "improved" cases.

The 10 percent classed as "unimproved" had an insufficient number of treatments, the average for this class being 4. It is probable that if these patients had continued they would have shown decided benefit.

Vitamin C in Liver

H. Aron, H. Kirsch-Kauffmann and E. Schadrich, in *Jahrb. f. Kinderh.*, No. 1, 1929, produced scurvy in guinea pigs by feeding a scurvy-producing diet. A selected number of the animals were fed a water extract of fresh liver, prepared by pounding 60 Gm. of liver in 60 cc. of water. About 5 to 6 cc. of this liver juice appeared to be equivalent to 7.5 Gm. of fresh ox liver, and the daily administration of this amount of liver prevented scurvy in the guinea pigs fed on the scorbutic diet. Heating the liver extract in boiling water did not affect its antiscorbutic qualities.

It is possible that some infants would tolerate a water extract of liver better than fruit juice as a prophylactic agent.

Stovarsol (Acetarsone) Treatment of General Paralysis

Drs. A. Sézary and A. Barbe, in *Presse Méd.*, Paris, Jan. 2, 1929, report their results in 125 cases of general paralysis treated by acetarsone.

Practitioners have generally avoided the use of acetarsone from the fear of optic neuritis, but the authors think that such a result is exceptional, and they themselves have never observed it. But, to avoid visual disturbances with certainty, instead of giving their patients three injections of 1.50 Gm. each week, intravenously, they give them only three subcutaneous injections of 1 Gm. each, the total of the medicament being always 21 Gm. in each series. The number of injections may at times be 30 or more.

The results vary according to the clinical type of the case—psychic excitation, intellectual

weakening or dementia. Generally, the best results were observed in patients of the psychic excitability class.

The acetarsone treatment has many advantages over the malarial treatment; moreover, the latter cannot be applied to dementes. The actual results in comparable classes of patients are as good if not better with acetarsone.

There was no parallel whatever between clinical improvements and the biologic findings in the patients. Those showing the greatest clinical improvements often showed little or no change in the blood and spinal fluid Wassermann reactions, and vice versa. Similarly with leukocytosis and hyperalbuminosis. Neither was there any parallelism in the biologic changes themselves. An improved Wassermann test did not necessarily imply an improvement in hyperalbuminosis.

Prevention of Fetal Injuries in Breech Delivery

The main causes of the fairly high mortality in breech deliveries are; compression of the cord, occurrence of nuchal positions of the arm and delay in delivery of the aftercoming head. The first accident is often inherent in the mechanism of breech labor. The other two accidents are more often the result of poor obstetric judgment and technic.

Drs. E. B. Piper and Carl Bachman, of Philadelphia, in *J.A.M.A.*, Jan. 19, 1929, state that they believe the best way, in hospital practice at least, to reduce the mortality is by eliminating the second and, if necessary, the late first stage of the labor, by an early change into the double footing attitude, and immediate extraction. For this, thorough dilation of the soft parts of the birth canal is essential, in the achievement of which deep anesthesia is a necessary adjunct.

The technic of extraction must be perfected, however, in order that nuchal position of the arms may be avoided and the aftercoming head guided into the pelvis with the face posterior. In the event of difficulty with the aftercoming head, the prompt use of the special Piper for-

ceps will save many infants heretofore lost by too long persistence in efforts to deliver by the standard manual methods.

The Occipitoposterior Positions of Vertex

In cases of occipitoposterior position, it is an error to assume that it is necessary to elevate the head before rotating into the anterior position. Given a normal pelvis, rotation becomes progressively easier with descent of the head.

Also, caution is usually advised not to use traction in connection with rotary movement. Traction, however, is often useful in fixing the head in the new position, making less likely its return to the original position when the forceps blades are removed.

Extension of the head or imperfect flexion is never a factor of dystocia.—Dr. Wm. D. PORTER, Cincinnati, in *J.A.M.A.*, Jan. 19, 1929.

Serum Prophylaxis of Measles

Dr. A. C. Silverman, of Syracuse, N. Y., in *J.A.M.A.*, Dec. 8, 1928, reports upon the application of convalescent serum in a recent measles epidemic in that city. The epidemic was unusually severe but there was no death in 398 serum-treated cases; and in the 297 patients for whom records are available not one developed bronchopneumonia and only 2 had ear complications. As a rule, the serum was not given until the very approach of the onset or invasion.

In about half of those who developed modified measles, 82 percent showed a shortening or absence of the prodromal period; 72 percent a lessening of the catarrhal symptoms; 67 percent a diminished or evanescent rash and in 77 percent the incubation period was more than 12 days.

The serum was usually given to children under 3 years old.

The author is of opinion that convalescent serum adds an important instrument in the individual and communal fight against measles.

NEW BOOKS

Stone: New-Born Infant

THE NEW-BORN INFANT. A Manual of Obstetrical Pediatrics. By Emerson L. Stone, M.D., Assistant Clinical Professor of Obstetrics and Gynecology, School of Medicine, Yale University; etc. Philadelphia: Lea and Febiger. 1929. Price \$2.00.

Dr. Stone points out that, commonly, the new-born child is rather likely not to receive adequate attention during the month or so immediately following birth. The obstetrician's responsibility ordinarily ceases as soon as the birth has been concluded. The pediatrician is likely to come on the scene only much later, especially if some obvious pathologic condition develops. Meantime, the child is left to the supervision of the nurse and mother.

This period immediately following birth is one in which the physiology of nutrition requires special attention; the infant should be thoroughly gone over, the developing functions examined and any incipient pathologic conditions attended to. Such care at this particular time will be of the greatest value in the child's future welfare.

This little book is intended to describe methods of filling the gap. It treats of birth injuries, dietary disorders, infections and disorders of special systems. It may be considered as a special supplementary chapter on obstetrics. In hospitals it is a matter for the superintendents to decide which members of the staff should be charged with the responsibility, but in general practice the physician must cover the whole field, and a work like this should be welcome.

Watson: Science as Revelation

SCIENCE AS REVELATION. By John M. Watson. New York: The Macmillan Company. 1929. Price \$2.00.

Fortunately the time is passing when people felt that there was a fundamental conflict between science and religion and that one must turn to some "inspired" revelation in a book to learn God's plan and purpose.

Today, thoughtful and open-minded persons, all over the world, are realizing that in the discoveries of science are to be found the only rational and valid presentation of what the Divine Ruler is and means. A being, infinite, eternal, unchangeable, omniscient, omnipotent and omnipresent, yet manlike, is absurd—presposterous. If we are to respect the Creator of the universe, we must respect and study His works.

With such an idea in mind, the author has summarized the most modern ideas presented by

astronomy, physics, chemistry, biology, geology, paleontology, anthropology, psychology, ethics and philosophy, and has shown how they all lead up to and rely upon orderly, law-governed and intelligent processes in their various fields; and that Order, Law and that Energy which is present in every part of the universe makes up what we can know of God, from the outside.

In two chapters at the end, "The New Religion" and "The New Revelation", Watson has brought his material to a focus and offered valuable suggestions.

The whole book is written in such language that any reasonably well educated person can understand the meaning, and with a background of wide and deep knowledge that will make a strong appeal to the profound thinker. Such a work is much needed and will make a powerful appeal to all who are intellectually curious, spiritually unsatisfied with what is offered them by the fundamentalists, and not too mentally lazy to enjoy a logical argument, clearly presented, but requiring some concentration and effort for its assimilation.

Pemberton: Arthritis

ARTHRITIS AND RHEUMATOID CONDITIONS. Their Nature and Treatment. By Ralph Pemberton, M.S., M.D., Physician to the Presbyterian Hospital, Philadelphia; Associate Professor of Medicine in the Graduate Medical School of the University of Pennsylvania; etc. Illustrated with 42 Engravings and 1 Colored Plate. Philadelphia: Lea and Febiger. 1929. Price \$5.00.

Dr. Pemberton is one of the pioneers in the modern research into the true nature of arthritis. Within the last dozen years or so there has been an immense amount of research inquiry, especially clinical, in connection with the etiology and therapeutics of the conditions classed under this broad heading; and, although it cannot be said that we have, as yet, arrived at incontestable conclusions, yet much progress has been made.

The present book has three main purposes: (1) to unite in a connected whole the long series of observations of the writer and his associates; (2) to attempt some correlation of these observations with critical work of other students on the subject; and (3) to present to the practitioner, in a general way, a wide-angled viewpoint and certain basic principles of treatment.

The first third of the volume gives data intended for those interested in the pathologic background from which arthritis springs. The latter two-thirds is intended as a practical exposition of principles and methods of treatment.

In this latter portion much space has been given to physical therapy, the modern use of which, in connection with the arthritides, is only an extension of an empiric mode of treatment which has the support of centuries behind it. As a member of the Council on Physical Therapy of the American Medical Association, as well as of kindred bodies, the views which the author expresses in regard to the value of physical therapy as a scientific treatment may be expected to be temperate and well-considered.

In connection with drug treatment the author particularly stresses the value of amiodoxyl benzoate.

In the 9 chapters which make up the work, every phase of the subject of the arthritides will be found considered from the most modern standpoints; and, in view of the wide occurrence of this class of diseases and the varying views regarding them, the general practitioner would do well to have a copy on his bookshelf and thoroughly study it.

Moxon: Diabetes

A PATIENT'S MANUAL OF DIABETES. By Herbert W. Moxon, B.A. (Cantab.), M.R.C.S., (Eng.), L.R.C.P. (Lond.), Hon. Physician, The Perth Hospital, Perth, Western Australia. New York: William Wood & Company. 1929. Price \$2.25.

This little manual has been written entirely for the information and guidance of diabetic patients. It is couched in simple language so that a patient, entirely ignorant of medical terms and technicalities, can comprehend the exact nature of the disease as well as the principles which underlie its treatment. Such an understanding on the part of the patient will save the physician much trouble and he will have an intelligent cooperation in management.

There are three chapters on the dietary treatment and one long chapter on the insulin treatment.

This is a book which a doctor can hand to his diabetic patient or to one that cares for him, with complete confidence.

Friel: Otorrhea

NOTES ON CHRONIC OTORRHOEA. With Especial Reference to the Use of Zinc Ionization in the Treatment of Selected Cases. By A. R. Friel, M.D. (Univ. Dub.), F.R.C.S.I., An Assistant Aurist, School Medical Service, London County Council; Aurist to Tottenham, Hornsey, and Walthamstow Education Committees. New York: William Wood & Company. 1929. Price \$2.25.

The author deals with the treatment of chronic otorrhea by zinc ionization when applicable; he has had extensive acquaintance with the working of this method in the treatment of large numbers of children in the Clinics established for this purpose by the London County Council.

The first part of the little book is technical, describing ionization and the procedures associated with its application in aural diseases.

The second part is concerned with the application of the method in particular diseases, especially chronic otorrhea.

The third part deals with the organization of otorrhea clinics.

The work is one for the aurist who uses physical therapy in his practice; but it may also be of great service to school medical officers.

Love: Short Surgery

A SHORTER SURGERY. A Practical Manual for Senior Students. By R. J. McNeill Love, M.B., M.S. (Lond.), F.R.C.S. (Eng.), First Surgical Assistant, London Hospital. With Forty-Three Illustrations Including Thirteen Plates. New York: William Wood & Company. 1929. Price \$4.00.

In a small volume of this size it is not possible to give more than an outline of those conditions in which surgery is indicated, with a brief description of the principal surgical procedures. The manual, therefore, is little more than a synopsis of the principal operations of surgery and is intended for the use of students, especially those who are preparing for examination. Nevertheless, so far as it goes, it is a practical book. There are 25 short chapters, each one dealing with a particular region.

MacAusland & MacAusland: Arthroplasty

THE MOBILIZATION OF ANKYLOSED JOINTS BY ARTHROPLASTY. By W. Russell MacAusland, M.D., Surgeon-in-Chief, Orthopedic Department, Carney Hospital, and Andrew R. MacAusland, M.D., Orthopedic Surgeon Carney Hospital, Boston, Mass. Illustrated with 154 Engravings. Philadelphia: Lea & Febiger. 1929. Price \$4.00.

Attempts to relieve ankylosed joints form one of the most interesting chapters in modern surgery and such procedures are associated with the names of some of the world's most famous surgeons. To this work American surgeons, including the authors of this text, as well as Murphy and Campbell, have contributed some highly interesting original methods.

The present book consists of four parts. Part I is descriptive of ankylosis and the early attempts at its treatment. In Part II the various methods of arthroplasty are considered, the two objects of the operation—restoration of motion and preservation of stability—being kept clearly in view. The authors' method of free fascial flaps, as distinct from Murphy's pedicled grafts, is fully described and its advantages and results discussed.

Part III treats of the application of arthroplasty to various kinds of ankyloses. This naturally is the most important part of the book and the techniques of the different operative procedures, but more especially of free fascial graft arthroplasty, are given in detail and well illustrated. Results obtained by various operators are cited.

Part IV deals with the prevention or minimization of ankylosis.

The book is one that, not only the orthopedic surgeon, but every general surgeon will want

and should have. But, outside of the strictly technical viewpoint, we consider the volume important, as a good deal of it shows the fine work which America is accomplishing in the general progress of scientific surgery based on physiology.

Dennie: Syphilis

SYPHILIS Acquired and Heredosyphilis. By Charles C. Dennie, B.S., M.D., Assistant Professor of Dermatology and Syphilology, University of Kansas School of Medicine, etc. New York and London: Harper & Brothers. 1928. Price \$2.50.

This monograph on syphilis is intended principally for the general practitioner.

The scope of the books comprised in the *Harper Medical Monographs* of which this is one lies between an elementary presentation of the subject, which would be more suitable for the medical student, and an advanced treatise such as a specialist would want.

All that a practitioner needs to know about the present aspects of syphilis—its pathology, diagnosis and treatment—will be found in this volume of about 300 pages. There are 34 short chapters in which every phase of syphilis, both as regards personal and public hygiene, is touched upon, lucidly and with sufficient detail. Particular attention is given to the technic of treatment.

This work differs from many others on the same subject, in that it is built up from the author's personal experiences in caring for patients with the disease, and is not merely a compilation from the literature. To our mind, personal experiences form one of the best reasons for publishing. The reader has the feeling that he is consulting an experienced specialist.

Not the least recommendation for these monographs is the reasonable price.

Anderson: Immortality

THE EVIDENCE OF IMMORTALITY. By Dr. Jerome A. Anderson. Reprinted from the Pages of the Canadian Theosophist. Toronto: The Blavatsky Institute. (Through the Theosophical Press, Wheaton, Ill.). 1928. Price

This essay is an examination, from a scientific viewpoint, into the probability of the continued existence of human life after the death of the body. Of course, by scientific is meant the light of reason applied to the phenomena of life; not a demonstration by means of the microscope and balances.

The author begins with the statement that the Western World is prone to lay exaggerated stress upon the importance of thought, and proceeds to show that, while reason may be necessary to prove that a man exists, it is not requisite to enable him to feel that he does. Moreover, man does not have to reason with himself to know that he is happy.

In an exceptionally thought-provoking chapter on Thought and Imagination he shows that the former deals with objective and the latter with subjective matters, both being equally real and equally necessary to a happy existence. He declares that imagination is the most perfect means of resting.

Describing the ego or soul as a unit of consciousness (as an atom or electron is a unit of matter), Dr. Anderson shows that the knowledge or recognition that I am myself does not change in its nature with all the changes which take place in the physical body from infancy to old age and as the result of accidents and injuries, and that, hence, the consciousness of identity, which many call the soul, does not depend for its existence upon the animal form of activities of its body. There is, therefore, no sound reason for declaring that this consciousness that I am myself is lost when the material form is destroyed.

In other chapters he discusses the effect of death upon the senses, the desire consciousness, thought, imagination, intuition and the feelings, and shows how the imagination plays the leading part in the soul's consciousness after death.

Among the remaining chapters is one dealing with the nature of the soul, and another showing the futility of most of the results obtained by the so-called spiritists.

Science admits matter and force to be indestructible, and yet, by a strange inconsistency, denies the permanence of the one element—intelligence—which renders possible the orderly sequence exhibited in the manifestations of the two admittedly indestructible elements.

No open-minded person can read this little volume without finding the scope of his consciousness enlarged. It will be especially valuable to physicians in improving their ability to deal with those psychic factors which enter into every case of illness, of whatever nature.

Clark & Gillespie: Poems

QUOTABLE POEMS. Compiled by Thomas Curtis Clark and Esther A. Gillespie. Chicago: Willett, Clark and Colby, 440 S. Dearborn St. 1928. Price \$2.50.

Occasions often arise when one wants to recall a poem one has seen or heard or needs something of the kind which can be used for an apt quotation in special circumstances. Here is a book which will meet such situations and is, at the same time, less bulky and expensive than the large encyclopedias of poetry.

The poems here collected are all sound verse and all possess the quality of quotability. Many of them are very well known. They are arranged under headings for special occasions and there is an index of titles and of first lines.

All who have literary aspirations or who love good poetry will find this collection a valuable addition to their libraries.

Granger: Physical Therapeutic Technic

PHYSICAL THERAPEUTIC TECHNIC By Frank Butler Granger, A.B., M.D., Late Physician-in-Chief, Department of Physical Therapeutics, Boston City Hospital; Director of Physiotherapy, United States Army; etc. With a Foreword by William D. McFee, M.D. Illustrated. Philadelphia and London: W. B. Saunders Company. 1929. Price \$6.50.

This is a very practical book on physical therapeutics, intended for the physician who has

installed a limited equipment—especially an electrotherapeutic one, as other physical therapeutic agencies are only scantily dealt with.

The author, who has been an active physical therapist for many years, approaches his task almost entirely from the practical aspect, but sufficient theory is given to explain the physiologic action of the different electric currents on various tissues and under normal and abnormal conditions.

The first half of the work is devoted to such explanations and to the technic of application of different machines. Minor details, the value or necessity of which can only be appreciated by one who is daily using these therapeutic methods, are given in profusion and will be of the greatest value to the physician who is eager to get the fullest and most definite results.

The second half of the volume comprises the applications of physical therapy, especially diathermy, ultraviolet rays and massage, to various pathologic conditions.

On the whole, this is an excellent manual for the general practitioner who uses physical therapy as a part of his office armamentarium, or even for the hospital which has a limited physical therapy department.

Cheesman: Bailliere's Synthetic Anatomy

BAILLIERE'S SYNTHETIC ANATOMY. A Series of Drawings on Transparent Sheets for Facilitating the Reconstruction of Mental Pictures of the Human Body. By J. E. Cheesman, Deputy Medical Officer of Health for Leyton, London. Complete in 12 parts, of which Parts I, II, III, IX, and IXa are now ready. New York: Thomas Nelson and Sons. Price, complete, \$36.00.

This atlas consists of a new and original series of drawings showing, by means of superimposed, colored, transparent plates, the soft tissues and structures in situ, as exposed by dissection, from the skin to the bone, both from back and front.

There are 12 separate parts, each covering a region of the body and 12 plates in each part with a key index.

The atlas is a convenient substitute for the body; the various anatomic details are shown very accurately and can be easily followed.

Willius: Clinical Electrocardiograms

CLINICAL ELECTROCARDIOGRAMS. Their Interpretation and Significance. By Frederick A. Willius, B.S., M.D., M.S. in Medicine, Section on Cardiology, The Mayo Clinic, Rochester, and Associate Professor of Medicine, The Mayo Foundation, University of Minnesota. With 368 Illustrations. Philadelphia and London: W. B. Saunders Company. 1929. Price \$8.00.

This is a book for the clinician. The electrocardiograph has almost entirely deposed other methods of clinical diagnosis in the case of most functional heart disorders, and perhaps there is no phase in cardiac pathology in which a diag-

nosis can be placed with so much certainty as in the case in which a clear cardiogram has been obtained.

In Dr. Willius's book a very large number of cardiograms, illustrating various conditions, have been collected. Often the same clinical case is followed so as to show the transitional changes. The text of the book is strictly confined to the subject of interpretation of the records and their clinical significance. For those who wish to pursue particular phases of the subjects treated, extensive bibliographies have been provided.

While every condition dealt with is well and amply discussed, we are particularly struck with the chapters on auricular flutter and paroxysmal tachycardia, especially as these two conditions are more likely to be observed in general practice than are others.

Although this volume will be of special interest to the clinical cardiologist, it is one with which every general practitioner should have at least some acquaintance. The day is not far distant when the electrocardiograph will be as intrinsic a part of the practitioner's armamentarium as is the stethoscope.

Mellish-Wilson: Writing Medical Papers

THE WRITING OF MEDICAL PAPERS. By Maud H. Mellish-Wilson, Editor of *The Mayo Clinic Publications*. Third Edition, Revised. Philadelphia and London: W. B. Saunders Company. 1929. Price \$1.50.

Mrs. Mellish-Wilson's little manual on the writing of medical papers has run into a third edition. It covers the whole field, from the author's vocabulary to the correction of the proof.

Those who desire to write articles for publication, no matter how short, should possess a guide of this kind. Not only do the rules laid down assure a better presentation of the facts or ideas of the writer, but a properly written and arranged paper is much more likely to be accepted by an editor than one prepared in a slipshod manner, even if the matter be interesting.

Livingstone: Aids to Medicine

AIDS TO MEDICINE. By James L. Livingstone, M.D., Lond., M.R.C.P., Lond., Junior Physician, King's College Hospital. Fourth Edition. New York: William Wood and Company. 1929. Price \$1.75.

This book may be described as a handy synopsis which gives all the important points concerning etiology, symptoms, treatment, etc., for the various diseases. It is intended for the use of students or to be carried in the pocket or physician's bag as a ready reference manual.

There are 15 chapters in which the various diseases are described regionally.

It is a useful little volume and appears to fulfill its purpose, having run into four editions.

MEDICAL NEWS



Courtesy *Chicago Tribune*

DR. GEORGE W. CRILE

Crile Clinic Disaster

On May 15, 1929, at 11:30 A.M., a terrible disaster occurred at the famous Crile Clinic, Cleveland, Ohio. A large collection of x-ray films, stored in the basement, caught fire in some manner not yet determined (there seems to have been a leaking steam pipe in the film vault) and, being in a confined space, exploded, the heat and pressure liberating a deadly gas, whose nature will, no doubt, be thoroughly investigated (some now say it was bromine; others a combination of carbon monoxide, vaporized camphor and nitric oxide; while another opinion, which seems reasonable, includes an analog of phosgene.)

As a result of the gas (which seems to have proved fatal within a minute or two after its inhalation and to have been responsible for most the deaths) and of the fire which followed, approximately 130 people (the death list is not complete as

this is written), including Dr. John Phillips and a number of other physicians and nurses, lost their lives.

Dr. George W. Crile, who was in the building at the time, escaped and worked over the injured ones in the various hospitals for hours.



A. P. Photo, Courtesy *Chicago Tribune*

RESCUERS AT WORK ON CRILE CLINIC

It is to be hoped that this terrible occurrence will be so thoroughly studied that, by understanding and eliminating the causes, similar accidents can be prevented in the future.

Summer Clinics

The Chicago Medical Society presents, again, two weeks of clinics, lectures and ward walks at Cook County Hospital, from June 17 to 29. Here is a fine postgraduate course for the insignificant fee of \$10. The course was oversubscribed last year, so those who want it will do well to write, at once, to The Chicago Medical Society (Summer Clinics), 185 N. Wabash Ave., Chicago.

Death of Professor Unna

In the *Presse Médicale*, Paris, April 10, an obituary notice is given of Professor Unna, the celebrated dermatologist, who has just died at the age of 78 years.

Dr. Unna was born at Hamburg, in 1850. His best known work was his "Histopathologie der Hautkrankheiten", pub-

lished in 1895. His fame as a dermatologist was world-wide.

Civil Service Examinations

The United States Civil Service Commission announces the following open competitive examinations:

Associate Medical Officer

Assistant Medical Officer

To fill vacancies occurring in the Federal classified civil service throughout the United States, except the U. S. Veterans' Bureau.

Physician

Associate Physician

To fill vacancies in the United States Veterans' Bureau for duty throughout the United States, and in positions requiring similar qualifications.

Graduate Nurse

Graduate Nurse (Visiting Duty)

Graduate Nurse (Junior Grade)

To fill vacancies in the Departmental Service, U. S. Veterans' Bureau, Public Health Service and Indian Service.

Applications for all above examinations will be rated as received by the U. S. Civil Service Commission at Washington, D. C., until June 29, 1929.

Full information may be obtained from the Commission or from the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

Medal to Dr. Goldberg

On May 1, 1929, the Benjamin J. Rosenthal Charities, Inc., awarded a gold medal to Dr. Benjamin Goldberg, of Chicago, secretary of the board of directors of the Chicago Municipal Tuberculosis Sanitarium, in recognition of his efforts for medical education in tuberculosis.

Research on Deafness

The Scientific Committee of the American Otological Society is soliciting contributions to its Research Fund, for the study into the causes and cure of chronic, progressive deafness.

Full particulars may be obtained from, or checks may be sent to: Research Fund of the American Otological Society, Inc., New York Academy of Medicine, 5th Ave. and 103d St., New York City.



Courtesy, Chicago Tribune

Dr. Hektoen Knighted

The eminent services to medical science rendered by Dr. Ludwig Hektoen, head of the department of pathology of the University of Chicago, director of the John McCormick Institute for Infectious Diseases and one of the world's outstanding pathologists, was recognized on May 14, 1929, when he was decorated with the Order of St. Olaf, conferred by the King of Norway. The Norwegian Consul in Chicago made the presentation.

Dr. Hektoen, who was born of Norwegian parents, in Westby, Wis., sixty-six years ago, is shown at the right.

American Heart Association

The scientific session of the American Heart Association will be held in Portland, Ore., on July 9, 1929, during the meeting of the A.M.A. All interested physicians are invited to attend.

Location in St. Louis

There is said to be a good opening for a physician in the metropolis of Missouri. Full particulars may be obtained by writing to Mr. H. J. Niehaus, Druggist, 501 Wilmington St., St. Louis, Mo.



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An Octogenarian Practitioner

That age is no bar to independence is proved by the case of Dr. Helen M.

Buchanan, of Chicago, who, though past 80 years old, is still in active practice, keeping regular morning and afternoon office hours.

Dr. Buchanan was born in 1849 and was graduated from the Chicago Homeopathic Medical College in 1882. She is a member of the local and state medical societies and an honorary member of the Chicago Medical Women's Club.

A Prescriber in St. Louis

We have been informed that there is a good opening in St. Louis for a prescribing physician. Any who are interested may write to Mr. Dave Glazier, Cor. Grand and W. Florissant Ave., St. Louis, Mo.

A Location in Kansas

A physician in a town in Kansas has died very suddenly and the community needs medical attention. Anyone who is interested can obtain full particulars from Mr. T. V. Harrington, Druggist, Solomon, Kans.

A Few Bouquets

"Have just received your fine March number, and as usual when it comes I drop everything, no matter how busy and review it, and mark the things I want to digest later."—H. C. B., M.D., Lima, O.

"I wish to congratulate you upon the manner in which your new CLINICAL MEDICINE AND SURGERY is compiled. This is certainly a very interesting magazine and one worth while. I have talked to a number about it, recommending the magazine to others."—W. R. C., M.D., Battle Creek, Mich.

"The last issue of CLINICAL MEDICINE AND SURGERY was one of the most practical I have read. General practitioners in particular ought to regard that Journal with almost as much veneration as the Bible."—H. S. B., M.D., Jersey City, N. J.

"Each Journal, to me, is like a post-graduate course, as it keeps me in touch with those who are up and doing. The Seminar makes a fellow feel as though he was back in the Green-Room, or right at the bedside, in the Clinics of years ago. They all refresh one's memory, and with the actual duties and cases of everyday life, helps to keep the "fires burning."—J. R. S., M.D., Warsaw, Mo.

Send For This Literature

To assist doctors in obtaining current literature published by manufacturers of equipment, pharmaceuticals, physicians' supplies, foods, etc., CLINICAL MEDICINE AND SURGERY, North Chicago Ill., will gladly forward request for such catalogues, booklets, reprints, etc, as are listed from month to month in this department. Some of the material now available in printed form is shown below, each piece being given a key number. For convenience in ordering, our

readers may use these numbers and simply send requests to this magazine. Our aim is to recommend only current literature which meets the standards of this paper as to reliability and adaptability for physicians' use.

Both the literature listed below and the service are free. In addition to this, we will gladly furnish such other information as you may desire regarding additional equipment or medical supplies. Make use of this department.

- R- 2 Your Prestige and Profit. 8-page booklet. The Carroll Dunham Smith Pharmacal Co.
- R- 3 Storm Binder and Abdominal Supporter, 4-page folder by Dr. Katherine L. Storm.
- R- 5 Ethical Medicinal Specialties. 8-page booklet. A. H. Robins Co.
- R- 7 The Cure of Cystitis, Pyelitis and other Inflammatory Conditions of the Urinary Tract. Chicago Pharmacal Co.
- R- 17 An Index of Treatment. Burnham Soluble Iodine Co.
- R- 45 Vera-Perles of Sandalwood Camp. Paul Plessner Co.
- R- 47 Campho-Phenique in Major and Minor Surgery. Campho-Phenique Company.
- R- 49 The Calcrose Detail Man. Maltbie Chemical Co.
- R- 50 Outwitting Constipation. Standard Oil Co.
- R- 56 Regaining Health. How Science Can Guide You! The Fleischmann Company.
- R- 58 The Pharmacology of Cod Liver Oil. Smith, Kline & French Co.
- R- 85 Ultraviolet for Health. Hanovia Chem. & Mfg. Co.
- R- 95 Everything for the Sick. Lindsay Laboratories.
- R-103 The Electron, May, 1929. McIntosh Electrical Corporation.
- R-112 Atophan after more than Fifteen Years of ever expanding use, etc. Schering & Glatz.
- R-116 Hemo-Glycogen, The New Product Hemoglobin Compound and Liver Extract. Chappel Bros., Inc.
- R-120 Building Resistance. William R. Warner & Co., Ltd.
- R-156 Siomine (Methenamine Tetraiodide). Pitman-Moore Company.
- R-169 The Quartz Lamp, May 15, 1929. Hanovia Chemical & Mfg. Co.
- R-176 The Hormone, May — 24 pages and cover, published bimonthly. The Harrower Laboratory.
- R-189 High Blood Pressure—Treatment with Theocalcin. E. Bilhuber, Inc.
- R-194 Fracture Book — 1928 Edition. De-Puy Mfg. Co.
- R-196 "Facts Worth Knowing." Intravenous Products Co. of America, Inc.
- R-197 Bulletin. Illinois Post Graduate Medical School, Inc.
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- R-204 News and Views from French Lick. French Lick Springs Hotel Co.
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- R-218 Eupinol. A distillate produced at a special temperature from the resinous wood of *Pinus Palustris*. The Tilden Company.
- R-222 Autumn Leaves—Guaianolic. Wm. R. Warner & Co., Inc.

SEND FOR THIS LITERATURE

June, 1929

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- R-262 Journal of Intravenous Therapy, May, 1929, Loeser Laboratory.
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- R-304 Illness Comes on Horseback but Goes Away on Foot.—Guiaatomic. Wm. R. Warner & Company, Inc.
- R-308 Health Books and Exercises by John Harvey Kellogg, M.D. The Battle Creek Food Co.
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- R-313 Symposium on the Intravenous Administration of Bismuth. Loeser Laboratory.
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- R-315 May, June, July Hay-Fever. The Arlington Chemical Company.
- R-316 Loeser's Intravenous Solution of Gentian Violet. Loeser Laboratory.
- R-318 Blood Clinical and Laboratory Diagnosis. A book of 160 pages by Henry Irving Berger, M.D. Battle & Company.
- R-319 Rational Treatment of Colonic Stasis. Scheilberg Mfg. Corp.